

**DISEASE STAGING:**  
***Clinical Criteria***

**Fifth Edition**

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# Disease Staging: Clinical Criteria Fifth Edition

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## **Preface**

Since its initial development in the late sixties, Disease Staging has undergone extensive review. The inclusion of criteria for additional diseases and periodic adjustments of laboratory data and diagnostic code assignments have ensured the timeliness, accuracy, and clinical relevance of Disease Staging.

Much of the initial development of Disease Staging was sponsored by the Office of Planning, Evaluation, and Legislation, the evaluation component of the Health Services Administration with the (then) Department of Health, Education and Welfare. The Staging concept was used to develop medically meaningful clusters of patients in terms of disease severity. Staging was also designed as a quality assurance tool for evaluating ambulatory care by comparing levels of severity at the time of hospitalization for patients receiving their health benefits from different government and private insurers.

Later development of Disease Staging was sponsored by the National Center for Health Services Research (NCHSR), a branch of the Public Health Service. Under contract to NCHSR, SysteMetrics (which is now part of The MEDSTAT Group) assembled a panel of physicians to develop Disease Staging criteria for 400 high-incidence diseases. Computer software was developed to apply Disease Staging criteria to automated hospital discharge abstract data. This software was validated in re-abstracting studies that compared manual and computer staging on a large sample of records. Results showed a high level of agreement between stages assigned manually using the full medical record and stages assigned by computer software operating on automated discharge abstract data.

Since the completion of the NCHSR work in 1983, improvements include the clinical modification of Staging criteria to reflect current clinical practice and the annual updating of coded Staging criteria to reflect current coding conventions. The result is a more complete and more precise system for defining disease severity. The Disease Staging definitions thus reflect the severity of a disease at any given time and the clusters have clinical significance in terms of prognosis and choice of therapy. Policy makers, health care administrators, and researchers, both in the United States and other countries, have applied Disease Staging in risk adjustment evaluations of health care efficiency and effectiveness.

Three decades of work developing Disease Staging have allowed the writer to appreciate the dedicated work of many, both in medicine and in other professions. The contributions of colleagues in the development of the first four editions, as well as the

present edition, are documented in the Contributors section. Others have made unique contributions which should be recognized: Cathleen A. Barnes, RRA, MEDSTAT, Santa Barbara, CA, who has supervised the assignment of the codes, a complex and monumental task; Clara A. Callahan, MD, the newest member of the team, who provided a clinical perspective, especially for the diseases of children; Marvin E. Gozum, MD, who has lent his research and computer skills to the project for a good part of ten years; and Daniel Z. Louis, who has been a collaborator on many studies for the past twenty-five years.

Joseph S. Gonnella, MD

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# Introduction

A disease can be effectively treated only when I as a doctor understand its causes in that particular patient, its site of origin, the internal havoc it creates, and the course which the process is likely to take whether treated or not. With that knowledge, I can make a diagnosis, prescribe a program of treatment, and predict an outcome.<sup>1</sup>

Where? Why? How serious? These are the basic questions that a clinician must attempt to answer when a patient presents with a medical problem. The same questions must be answered to make appropriate comparisons in studies of outcomes, quality, or costs of care. The "where" is the specific organ or system of the body; the "why" is the etiology of the problem; and the "how serious" is the pathophysiologic changes that have occurred and ranking of the disease's complications.

Physicians use information from a patient's history, physical examination, laboratory findings, and other diagnostic tests to answer these questions in order to diagnose a disease, to estimate the patient's prognosis, and to prescribe appropriate treatment. Ideally, answers should be available before therapeutic intervention. Even in those cases when definitive answers may not be available and treatment must be given, it should be based on the presumptive answers to these questions.

Disease Staging is a classification system that uses diagnostic findings to produce clusters of patients who require similar treatment and have similar expected outcomes. It can serve as the basis for clustering of clinically homogeneous patients for assessment of quality of care, analysis of clinical outcomes, review of utilization of resources, assessment of efficacy of alternative treatments, and assignment of credentials for hospital privileges.

Ideally, a diagnostic label should have explicit data about the location of the health problem, cause of the problem, and severity of the problem. The majority of diagnostic labels identify the site of the disease (e.g., appendicitis, cholecystitis, diverticulitis, and peptic ulcer). Some provide information about the system involved and cause of the problem (e.g., Pneumococcal pneumonia and urinary tract infection caused by *E. coli*). Other diagnostic labels are manifestations of problems (e.g., hypertension and anemia). A few, because of the body system involved, also convey a degree of severity (e.g., myocardial infarction or

bacterial meningitis). And some may even be distinguished by the time of the disease's onset (e.g. congenital toxoplasmosis).

Only in the area of cancer has the medical profession developed a diagnostic classification that includes severity based on the understanding of the need to measure the efficacy of various forms of treatment for similar clusters of patients. Now that society is challenging the medical profession to document quality of care in a more objective manner, similar measurement instruments are needed for all medical problems.

### **Disease Staging Criteria**

The Disease Staging criteria define levels of biological severity for specific medical diseases, where severity is defined as the risk of organ failure or death. The classification is based on the severity of the pathophysiologic manifestations of the disease:

<b>Stage 1</b>	A disease with no complications;
<b>Stage 2</b>	-the disease has local complications;
<b>Stage 3</b>	-the disease involves multiple sites, or has systemic complications;
<b>Stage 4</b>	-death.

Subdivisions of these stage levels have been defined to allow more precise classification. The challenge is to include enough detail to allow for a rich description of each disease and yet not be so overwhelmingly complete that the staging is cumbersome.

In the definition of the Staging criteria, most of the diseases begin at Stage 1 and continue through Stage 4. There are several exceptions to this rule. Some self-limiting diseases, such as cataracts, do not include a Stage 3 or 4. Other criteria begin at either Stage 2 or 3 since they are often complications of other diseases; e.g., bacterial meningitis, which can be a complication of sinusitis, otitis media, or bacterial pneumonia. Stage 0 has also been included in the classification of diseases for patients with a history of a significant predisposing risk factor for the disease, but for whom there is currently no pathology, e.g. history of carcinoma or a newborn baby born to a mother suspected of having an infection at the time of delivery.

The Stage levels are ordinal in nature for each medical problem. Stage 1 of one disease may have different implications for resource use, treatment, and prognosis than a similar stage of another disease. For example, hyperglycemia (Stage 1 diabetes mellitus) is different than positive serological evidence of AIDS (Stage 1). Even when major pathophysiologic damage exists such as coma, which in all diseases is a Stage 3 complication, the prognosis may be different for each disease since for some there is treatment which may reverse the complication. Treatment, whether medical or surgical, has not, however, been introduced into the staging classification; staging is driven by the natural history of the disease. Nor has quality of life been taken into consideration in Disease Staging. Controlling for other factors, such as choice of treatment, age, and presence of co-morbid disease, risk of death is a function of etiology and stage of disease and, while generally increasing by Stage level, may vary dramatically by Stage from one disease to another.

It is important to distinguish the etiology of a disease whenever possible. For example, "pneumonia" does not specify etiology. Designating that the pneumonia was bacterial in origin would be an improvement, (e.g., "bacterial pneumonia"), but optimally a physician should document the specific bacteria causing the pneumonia (e.g., "Pneumococcal pneumonia").

Health problems, such as congestive heart failure, and laboratory findings, such as anemia, that may result from a variety of causes, are not diagnoses. When this is all that is recorded as the patient's "diagnosis," the implication is that the physician did not know, or did not document, the disease process that produced the problem. Unfortunately, many users of medical information fail to distinguish between non-specific health problems (e.g., symptoms and laboratory findings) and diagnoses of specific diseases. As a result, patients may be inappropriately classified for the purposes of reimbursement, for the analysis of resource utilization, and for the assessment of quality of care.

For each Staging criteria set included in this volume the most likely etiology is specified. Some of the diseases may have multiple etiologies (e.g. bacterial pneumonia). While the classification of Pneumococcal pneumonia is essentially the same as for Staphylococcal or *Pseudomonas* pneumonia, each type of bacterial pneumonia should be analyzed separately when evaluating quality of care, clinical trials, and utilization of resources because of the varying prognosis associated with each.

There are a number of complications (for example, sepsis and congestive heart failure) that may result from many diseases. Generally, these complications have been assigned the same integer stage level across the different diseases, although not necessarily the same

substage level. Different integer stage levels have been used when the complication may indicate different levels of severity depending upon the underlying disease. For example, pneumonia is classified as a Stage 2 complication when it occurs secondary to other problems. There are a few diseases, such as botulism, where aspiration pneumonia or bacterial pneumonia is a reflection of the systemic nature of the problem rather than just the involvement of the respiratory system. For these diseases, pneumonia is classified as a Stage 3 complication.

## **Diagnostic Findings**

In addition to the stages of the disease, each criteria set includes a specification of “diagnostic findings” that can be used to validate the presence of the disease and stage level. The diagnostic findings include physical findings, radiological and laboratory results, and pathological and operative reports.<sup>2</sup>

The present edition has addressed the validation issue more comprehensively than previous editions. Only the information that specifically documents a complication is included, with the understanding that physicians should first gather data from the history and physical examination to state an hypothesis (presumptive diagnosis) and use the laboratory judiciously to validate the diagnosis. Which laboratory data are collected will depend on available facilities and cost-benefits for the patients. For some diagnoses, both the patient and physician can accept uncertainty. However, if major treatment decisions are to be made, validation using objective data is essential. For instance, patients should not be treated for cancer on a presumptive diagnosis.

For some diagnostic testing (e.g. the use of the glucose tolerance test or fasting blood sugar for the diagnosis of diabetes mellitus), criteria have been recommended that are accepted by the medical community. Many laboratory tests, however, do not have nationally accepted values to delineate normal and abnormal results. In these situations, laboratory results have been defined to be abnormal when they exceed three standard deviations from the mean value.<sup>3,4</sup>

In summary, the physician’s clinical judgment based on the history and physical examination should be used along with laboratory data to confirm or rule out the presence of a particular problem. In addition, laboratory values may need to be adjusted based on the calibration of the laboratory performing the test.

## **Applications of Disease Staging**

Disease Staging is a valuable tool in many clinical, research, management, and educational studies. Examples of how Disease Staging has been used to classify patients for a number of applications are highlighted below.

### ***Timing of Hospitalization***<sup>5-8</sup>

Disease Staging may be used to document potential quality of care problems in ambulatory settings by providing data relating to the level of severity of illness of patients at time of hospitalization. Patients admitted to the hospital with advanced stages of illness represent possible failures of outpatient care. For example, an admission for cellulitis secondary to diabetes mellitus might have been preventable if the disease progression could have been averted with appropriate outpatient care.

For some diseases, such as appendicitis, hospitalization is clearly appropriate at the earliest stage of the disease. Other diseases, such as essential hypertension, rarely require hospitalization at the early stages; hospitalization is only required if the disease progresses to more advanced stages.

Because admitting patients to an acute care hospital involves incurring significant cost and potential risk, patients should be admitted to the hospital only if the expected benefits outweigh the costs and risks of the admission, such as: when they require inpatient diagnostic testing; when their symptoms suggest a serious illness which, if confirmed, may require immediate treatment; when they require treatment that is most appropriately provided as an inpatient; and, when they require the types of monitoring and nursing care which are available only in an acute care hospital.

Classification of severity of illness at the time of hospitalization is important for analysis of both inpatient and outpatient care. Comparison of outcomes of inpatient care can be accomplished only if one adjusts for patient risk at time of admission.

For patients admitted at earlier stages of illness, one may question whether an acceptable level of care could have been provided in an outpatient setting. A number of factors could make such an earlier stage admission appropriate. For example, a patient with acute symptoms (e.g. chest pain), but without a confirmed diagnosis, may be appropriately admitted to the hospital until a diagnosis and a decision can be made as to whether further inpatient care is necessary. A patient may have other co-morbid conditions (for example, poorly controlled diabetes mellitus) that make the admission advisable, or a patient may

choose to undergo an elective surgical procedure that must be performed as an inpatient. A patient with osteoarthritis of the hip who decides to have a total hip replacement would clearly require hospitalization.

For patients hospitalized at more advanced stages, the issue is whether the patient has complications that could have been preventable with earlier inpatient care. For example, a patient admitted with acute cholecystitis and gangrene of the gallbladder has a serious complication that may have been prevented with earlier hospitalization and treatment.

Timeliness of admission is, in part, a function of whether hospitalization is the first or subsequent admission for a particular complication of episode of care. For example, a first admission at advanced-stage cancer should raise questions about whether earlier detection was feasible. Subsequent scheduled admissions for the same patient to undergo chemotherapy would not, or course, raise the same question.

It is important to differentiate the concept of a timely admission from a preventable admission. For example, an admission at Stage 1 appendicitis is timely and, given current medical knowledge, not preventable. Such an admission does not raise issues of appropriateness of care. On the other hand, while an admission for Stage 2.5 diabetes mellitus and cellulitis is also timely, it may have been a preventable admission if the disease progression could have been averted with appropriate outpatient care.

### ***Case-Mix Classification for Analysis of Resource Utilization and Reimbursement***<sup>9-19</sup>

Disease Staging should be an integral part of systems designed to analyze resource utilization. Differences in length of stay and cost may result from differences in patient populations treated, as well as from differences in efficiency. Etiology and stage of disease are directly related to the use of resources and must be considered in these types of analyses whether the focus is at the level of an individual physician, a hospital product line, or an entire institution.

In addition to the stage of the principal disease, other variables to be included in analysis of utilization include: presence of co-morbid, or co-existing, medical problems (e.g., presence of diabetes mellitus in a patient hospitalized for appendicitis - both the diabetes mellitus and appendicitis should be staged); reason for admission (e.g., for diagnostic purposes, therapeutic purposes, both diagnosis and therapy, chemotherapy, or observation); and the

use of surgical procedures or special units (e.g., ICU, CCU) if such use is justified by the needs of the patient.

The use of resources depends on the clinical status of the patient, on the reason for admission, and whether the latter is the first or one of many re-admissions. For instance, a woman with Stage 3 cancer of the breast will consume more resources during the first hospitalization, when more diagnostic and therapeutic interventions will be used, than on her third hospitalization, when for the same problem she may likely receive only chemotherapy or radiation therapy. In addition, the social support needs of the patient should be considered, although this variable would have a greater impact on timing of hospitalization and length of stay than on the diagnostic or therapeutic intervention.

By using Disease Staging, the variation in resource use resulting from patient differences can be controlled so that the manager or researcher can appropriately focus on the analysis of differences resulting from variation in physician and institutional practices. For similar reasons, reimbursement systems should be modified to account for differences in severity of illness.

### ***Quality of Care Assessment***<sup>5, 20-30</sup>

Whether the goal is assessment and improvement of the process of care or evaluation of clinical outcomes, there is a need for clinical specificity. The Health Care Financing Administration, for Medicare patients, and several statewide data organizations publish institution specific, and in some cases physician specific, information on outcome measures such as mortality. Without appropriate ways to account for differences in the severity of the patient mix treated, the meaningfulness of these types of analyses is questionable. For example, analysis of data from the National Hospital Discharge Survey demonstrated a 5.6% mortality rate for patients hospitalized with Stage 1 bacterial pneumonia, 9.5% for those with Stage 2, and a 33.1% mortality rate for Stage 3.<sup>29</sup> These estimates were further refined by considering the specific etiology (organism) of the pneumonia.

As a part of a quality improvement program, these types of advanced stage admissions should be reviewed to evaluate whether they resulted from physician related problems (e.g., delayed or incorrect diagnosis or treatment), patient related problems (e.g., failure to seek timely care or comply with prescribed treatment), system problems (e.g., lack of access to care), or were not preventable (e.g., resulting from rapid disease progression in a particular patient).

Disease Staging can also be used as a direct measure of patient outcomes by studying changes in disease stage over time. For instance, severity at hospital admission can be compared with severity at discharge. Patient based longitudinal data can be used in conjunction with Disease Staging to assess changes in severity of illness for defined populations and specific episodes of care.

Disease Staging is useful in evaluating processes as well as outcomes of medical care. A great deal of activity is currently being devoted to the development of clinical guidelines designed to reduce uncertainty and help guide the process of care. One of the difficulties faced in guidelines development is that the appropriateness of a specific diagnostic test or prescribed treatment varies by stage of disease. By defining stage-specific criteria it is possible to improve the specificity of clinical guidelines and process review criteria and make them more useful and acceptable to clinicians.

### ***Clinical Trials***<sup>29</sup>

The primary objective of clinical trials is to test the efficacy of therapeutic interventions under highly controlled conditions. By using Disease Staging to help specify the study population, comparability of the treatment and control groups can be assessed. Staging allows the investigator to stratify patients more accurately both for their principal diagnoses or problems and for any co-morbid conditions that they may have. Depending on the goals of the trial, it can be restricted to samples defined using specific stages of disease or designed to allow the assessment of efficacy across different levels of severity.

### ***Professional Staffing and Facility Planning in Health Care Institutions***<sup>9-11, 31</sup>

Severity of illness as documented by Disease Staging may be used to evaluate the appropriateness of current or planned staffing levels within hospitals or managed care institutions in relationship to patients' health care needs. Staging can provide data concerning the level of severity of specific patient groups that may warrant establishing or expanding special care units or securing special diagnostic equipment or other facilities.

### ***Specialty Board Certification and Clinical Privileges***<sup>32-34</sup>

A major responsibility of medical specialty boards is the development and administration of procedures and examinations for board certification and recertification. Disease Staging has

been used to classify the content of test items from the board certification/recertification examinations administered by the American Board of Family Practice<sup>32</sup> and to analyze medical licensing examinations in Japan.<sup>33</sup> Each item on the examination is classified by organ system, etiology, and stage of illness, along with other dimensions such as age group affected and whether the item focuses on diagnosis or management.

Use of this type of classification enables the specialty board to assess the current mix of items and begin to develop a "blueprint" to guide development of future examinations. For example, by using Disease Staging, one can refine the assessment of the physician's knowledge of the management of diabetes mellitus to assure that there is an appropriate mixture of items concerning management of the disease at its early stages along with prevention and management of specific advanced stage complications.

Disease Staging can be used in the assignment of hospital clinical privileges.<sup>34</sup> Currently, the delineation of clinical privileges is primarily procedure oriented, even in the medically oriented specialties. For example, a general internist may be credentialled to perform procedures such as arterial puncture, thoracentesis, and lumbar puncture. However, the skills necessary to successfully perform an arterial puncture say very little about the physician's ability to diagnose or manage the complex patient with advanced stage medical problems.

Disease Staging can be used to delineate disease specific privileges that more appropriately reflect the clinical challenges of patient management. For example, a board certified general internist may have the appropriate education and experience to manage early stage diabetes mellitus, but not for the management of a patient admitted for hyperosmolar coma. Potentially, the volume and outcomes of stage specific experience could also be monitored, as is increasingly done for surgical volume and outcomes, to reassess the privileges assignment.

### ***Medical Education***<sup>35, 36</sup>

A significant part of both undergraduate and graduate medical education involves increasing levels of patient care responsibility as the experience of the student/physician increases. Disease Staging can be used as a part of systems designed to document these clinical experiences. For example, what is the mix of severity of illness of patients with diabetes mellitus seen by medical students? Does the student have adequate experience managing a patient with this disease to avoid complications as well as in treating complications, which

may occur? Does this vary depending on the site where the students perform their clerkship? Is there significant variation from student to student?

Similarly, Disease Staging concepts can be used to evaluate the content of the curriculum. To what extent does the medical curriculum address Stage 1 illness and to what extent does it address Stage 3 illness? To what extent is attention devoted to problems associated with particular body organ systems or to problems of a particular etiological nature?

Use of Disease Staging can also help the student and resident become more effective diagnosticians. By understanding the evolution of a disease, the physician will use the laboratory more effectively and avoid delay in arriving at an accurate diagnosis.

### **Staged Diseases**

The following pages include a detailed listing of all staged diseases.

## References

1. Nuland SB. Doctors: The Biography of Modern Medicine. New York, NY:Afred A. Knopf; 1988; xvii.
2. Conn RB, Borer WZ, and Snyder JW. Current Diagnosis. 9th Ed. 1997, WB Saunders Company, Philadelphia.
3. Tietz NW. Clinical Guide to Laboratory Tests. 3rd Ed. 1995, WB Saunders Company, Philadelphia.
4. Speicher CE. The Right Test. 3rd Ed. 1998, WB Saunders Company, Philadelphia.
5. Gonnella JS, Louis DZ, Zeleznik C, and Turner BJ. The Problem of Late Hospitalization: A Quality and Cost Issue. *Academic Medicine*. 1990; 65:314-319.
6. Louis DZ, Gonnella JS, and Zeleznik C. An Approach to the Prevention of Late Hospital Admissions. In: Stemming the Rising Costs of Medical Care: Answers and Antidotes. Battle Creek, Mich: W.K. Kellogg Foundation; 1988:147-157.
7. Taroni F, Louis DZ, Yuen EJ, Anemonia A, and Zappi A. Timeliness of Hospital Admission. *Proceedings 7th International Patient Classification System/Europe Working Conference*. 1991; 19-21.
8. Taroni F, Louis DZ, Yuen EJ, Anemonia A, and Zappi A. La Valutazione della Tempestività dei Ricoveri: Uno Strumento per La Gestione del Case-Mix Ospedaliero. *Press DRG, Periodico Regionale*. 1991; 2:3-6.
9. Conklin JE, Lieberman JV, Barnes CA, and Louis DZ. Disease Staging: Implications for Hospital Reimbursement and Management. *Health Care Financing Review Supplement*. 1984:3-22.
10. Garg M, Louis DZ, Gliebe W, et al. Evaluating Inpatient Costs: The Staging Mechanism. *Medical Care*. 1978; 16:191-201.
11. Gonnella JS, Hornbrook MC, and Louis DZ. Staging of Disease: A Case-Mix Measurement. *Journal of the American Medical Association*. 1984; 251:637-644.
12. Inouye SK, Peduzzi PN, Robison JT, et al. Importance of Functional Measures in Predicting Mortality among Older Hospitalized Patients. *Journal of American Medical Association*. 1998; 279:1187-93.
13. Louis DZ, Yuen EJ, Braga M et al. Impact of DRG-based Hospital Financing System in Quality and Outcomes of Care in Italy. *Health Services Research*. April 1999, Part II; 34:405-415.
14. McKee M and Petticrew M. Disease Staging - A Case-Mix System for Purchasers? *Journal of Public Health Medicine*. 1993; 15:25-36.
15. Taroni F, Louis DZ, and Yuen EJ. An Analysis of Health Services Using Disease Staging: A Pilot Study in the Emilia-Romagna Region of Italy. *Journal of Management in Medicine*. 1992; 6:53-66.

16. Taroni F, Repetto F, Louis DZ et al. Variation in Hospital Use and Avoidable Patient Morbidity. *Journal of Health Services Research Policy*. 1997; 2:217-22.
17. Umesato Y, Louis DZ, Yuen EJ, Taroni F, and Migliori M. Variation in Patient Mix and Patterns of Care: A Study at 3 Teaching Hospitals in Italy, Japan, and the USA. *Japan Journal of Medical Informatics*. 1993.
18. Wiley MM and Merce RT. A Cross-National, Casemix Analysis of Hospital Length of Stay for Selected Pathologies. *European Journal of Public Health*. 1999; 9:86-92.
19. Yuen EJ, Taroni F and Louis DZ. The Italian Case-Mix Project: Repeated Hospitalizations and the Quality of Care. *Clinical Performance and Quality Health Care*. 1997; 2:129-34.
20. Gonnella JS and Louis DZ. Evaluation of Ambulatory Care. *Journal of Ambulatory Care Management*. 1988; 11:68- 83.
21. Gonnella JS and Louis DZ. Severity of Illness in the Assessment of Quality: Disease Staging. In: Hughes EFX, ed. Perspectives on Quality in American Health Care. Washington, DC: McGraw-Hill; 1988:69-84.
22. Gonnella JS and Louis DZ. La Valutazione della Qualità della Assistenza Sanitaria. Press DRG, *Periodico Regionale*. 1992; 3:3-10.
23. Gonnella JS and Louis DZ. Physicians' Responsibilities and the Evaluation of Outcomes of Medical Care. In Accountability and Quality in Health Care. Markson LE and Nash DB, ed. Joint Commission on Accreditation of Healthcare Organizations, 1995; 205-28.
24. Gonnella JS, Cattani J, Louis DZ, et al. Use of Outcome Measures in Ambulatory Care Evaluation. In: Giebink GA, White NH, eds. Ambulatory Medical Care Quality Assurance 1977. La Jolla, CA: La Jolla Health Science Publications; 1977.
25. Gonnella JS, Louis DZ, and McCord JJ. The Staging Concept: An Approach to the Assessment of Outcome of Ambulatory Care. *Medical Care*. 1976; 14:13-21.
26. Gonnella JS, Louis DZ, McCord JJ, et al. Toward an Effective System of Ambulatory Health Care Evaluation. *Quality Review Bulletin*. 1977; 3:7.
27. Louis DZ. Valutazione della Qualità Dell'assistenza e Gravità della Malattia. Press DRG, *Periodico Regionale*. 1991; 1:3-5.
28. Louis DZ and Gonnella JS. Disease Staging: Applications for Utilization Review and Quality Assurance. *Quality Assurance & Utilization Review*. 1986; 1:13-18.
29. Markson LE, Nash DB, Louis DZ, Gonnella JS. Clinical Outcomes Management and Disease Staging. *Evaluation & The Health Professions*. 1991; 14:201-227.

30. Taroni F, Louis DZ, and Yuen EJ. Outcomes Management: The Italian Case-Mix Project. In: Casas M and Wiley, Eds. Diagnosis Related Groups in Europe: Uses and Prospectives. New York, NY: Springer- Verlag; 1993:97-108.
31. Forthman LC. Achieving Competitive Advantage through Information Management. *Computers in Healthcare*. 1990; 11:38-43.
32. Pisicano NJ, Veloski JJ, Brucker PC, and Gonnella JS. Classifying the Content of Board Certification Examinations. *Academic Medicine*. 1989; 64:149-154.
33. Kaga K and Gonnella JS. Disease Staging. *Japanese Journal of Nursing Education*. 1990; 31:595-598.
34. Nash DB, Louis DZ, and Gonnella JS. Improved Practice Profiles Called Key to Better Care. *Quality Assurance News & Views*. 1990; 2:1&4.
35. Gonnella JS, Hojat M, Erdmann JB, and Veloski JJ. What Have We Learned, and Where Do We Go From Here? In: Gonnella JS, Hojat M, Erdmann JB, Veloski JJ, eds. Assessment Measures in Medical School, Residency, and Practice: The Connections. New York, NY: Springer Publishing Company; 1993:155-173.
36. Rattner SL, Louis DZ, Rabinowitz C et al. A New System for Documenting and Comparing Medical Students' Clinical Experiences. *JAMA*. 2001. In press.

## Clinical Criteria with Description

DXCat Number: CVS01

DXCat Label: Aneurysm, Abdominal

Etiology:

Degenerative

### Stage Description

1.01	Abdominal aneurysm $\leq$ 5 cm.
1.02	Abdominal aneurysm $>$ 5 cm.
2.01	Symptomatic abdominal aneurysm
2.02	with dissection
3.01	with rupture
3.02	with shock
4.00	with death

### References:

Blankensteijn JD, Lindenburg FP, Van der Graaf Y, Eikelboom BC. Influence of study design on reported mortality and morbidity rates after abdominal aortic aneurysm repair. *British Journal of Surgery*. 1998;85(12):1624-30.

Clouse WD, Hallett JW Jr., Schaff HV, et al. Improved prognosis of thoracic aortic aneurysms: a population-based study. *JAMA*. 1998;280(22):1926-9.

Lintott P, Hafez HM, Stansby G. Spinal cord complications of thoracoabdominal aneurysm surgery. *British Journal of Surgery*. 1998;85(1):5-15.

Wilmink AB, Quick CR. Epidemiology and potential for prevention of abdominal aortic aneurysm. *British Journal of Surgery*. 1998;85(2):155-62.

## Clinical Criteria with Description

DXCat Number: CVS02

DXCat Label: Aneurysm, Thoracic

Etiology:

Degenerative; Trauma

Stage	Description
1.01	Asymptomatic thoracic aneurysm
2.01	with bronchial obstruction or laryngeal nerve involvement
2.02	with superior vena cava obstruction
2.03	with dissection
3.01	with rupture
3.02	with shock
4.00	with death

### References:

Clouse WD, Hallett JW Jr., Schaff HV, Gayari MM, Ilstrup DM, Melton LJ 3rd. Improved prognosis of thoracic aortic aneurysms: a population-based study. JAMA. 1998;280(22):1926-9.

Lintott P, Hafez HM, Stansby G. Spinal cord complications of thoracoabdominal aneurysm surgery. British Journal of Surgery. 1998;85(1):5-15.

Satoh D, Matsukawa S, Saishu T, Hashimoto Y. Effect of surfactant on respiratory failure associated with thoracic aneurysm surgery. Critical Care Medicine. 1998;26(10):1660-2.

## Clinical Criteria with Description

DXCat Number: CVS03

DXCat Label: Anomaly: Patent Ductus Arteriosus

Etiology:

Congenital

### Stage Description

1.01	Asymptomatic patent ductus arteriosus
2.01	with hypoxemia
3.01	with pulmonary hypertension
3.02	with infective endocarditis
3.03	with congestive heart failure
3.04	with sepsis
3.05	with respiratory failure
3.06	with shock
4.00	with death

### References:

Bernstein D. Acyanotic congenital heart disease: the left to right shunt lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1288-1296.

Daniel WG, Muggle A. transesophageal echocardiography. N Engl J Med. 1995;332(19):1268-79.

Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.

Friedman WF, Child JS. Congenital heart disease in the adult: acyanotic congenital heart disease with a left-to-right shunt. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:1303-1306.

Massie BM, Amidon TM. Congenital heart disease: patent ductus arteriosus. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:342-343.

Perloff JK. Patent ductus arteriosus. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:510-545.

Perloff JK. Primary pulmonary hypertension. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders, 1994:273-292.

Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Noncyanotic heart disease: patent ductus arteriosus. In: Hay WW, Groosthuss JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:494-496.

## Clinical Criteria with Description

DXCat Number: CVS04

DXCat Label: Aortic Regurgitation

Etiology:

Congenital; Degenerative

### Stage Description

1.01	Mild chronic aortic regurgitation
2.01	Moderate chronic aortic regurgitation
2.02	Mild chronic aortic regurgitation with atrial fibrillation
2.03	Moderate chronic aortic regurgitation with atrial fibrillation
3.01	Mild chronic aortic regurgitation with CHF
3.02	Moderate chronic aortic regurgitation with CHF
3.03	Severe asymptomatic chronic aortic regurgitation
3.04	Acute severe aortic regurgitation
3.05	Severe aortic regurgitation with ventricular dilatation
3.06	Severe aortic regurgitation with CHF
3.07	Severe aortic regurgitation with sepsis
3.08	Severe aortic regurgitation with respiratory failure
3.09	Severe aortic regurgitation with shock
4.00	Severe aortic regurgitation with death

## Clinical Criteria with Description

DXCat Number: CVS04

DXCat Label: Aortic Regurgitation

Etiology:

Congenital; Degenerative

### Stage Description

### References:

- Bernstein D. Acyanotic congenital heart disease: the obstructive lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1297-1305.
- Braunwald E. Valvular heart disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1311-1324.
- Carabello BA, Crawford FA Jr. Valvular heart disease. N Engl J Med. 1997;337(1):32-41.
- Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. Mayo Clinic Proceedings. 1996;71(2):184-196.
- Freed M. "Congenital Heart Disease: Acyanotic and Cyanotic." In Gewitz MH, ed. Primary Pediatric Cardiology. Armonk NY: Futura, 1995:145-220.
- Massie BM, Amidon TM. "Heart: Valvular Heart Disease." In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange, 1998:344-353.
- Perloff JK. "Congenital Aortic Stenosis; Congenital Aortic Regurgitation." In The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia: WB Saunders, 1994:91-131.
- Perloff JK. "Survival Patterns Without Cardiac Surgery or Interventional Catheterization: A Narrowing Base." In Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia: WB Saunders, 1998:15-52.
- Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. "Noncyanotic Heart Disease: Aortic Stenosis." In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange, 1997:500-502.

## Clinical Criteria with Description

DXCat Number: CVS05

DXCat Label: Aortic Stenosis

Etiology:

Congenital; Degenerative

Stage	Description
1.01	Mild aortic valve stenosis
2.01	Moderate aortic valve stenosis
3.01	Severe aortic valve stenosis
3.02	Severe aortic valve stenosis with angina
3.03	Severe aortic valve stenosis with low ejection fraction
3.04	Severe aortic valve stenosis with syncope
3.05	Severe aortic valve stenosis with atrial fibrillation
3.06	Severe aortic valve stenosis with CHF
3.07	Severe aortic valve stenosis with respiratory failure
3.08	Severe aortic valve stenosis with shock
4.00	Severe aortic valve stenosis with death

## Clinical Criteria with Description

DXCat Number: CVS05

DXCat Label: Aortic Stenosis

Etiology:

Congenital; Degenerative

### Stage Description

### References:

- Bernstein D. Acyanotic congenital heart disease: the obstructive lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1297-1305.
- Braunwald E. Valvular heart disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York: McGraw-Hill; 1998:1311-1324.
- Carabello BA, Crawford FA Jr. Valvular heart disease. N Engl J Med. 1997;337(1):32-41.
- Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. Mayo Clinic Proceedings. 1996;71(2):184-196.
- Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.
- Massie BM, Amidon TM. Heart valvular heart disease. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:344-353.
- Perloff JK. Congenital aortic stenosis; congenital aortic regurgitation. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:91-131.
- Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.
- Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Noncyanotic heart disease: aortic stenosis. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:500-502.

## Clinical Criteria with Description

DXCat Number: CVS06

DXCat Label: Arrhythmias

Etiology:

Congenital; Degenerative; Idiopathic; Toxicologic

### Stage Description

1.01	Atrial premature contractions or sinus arrhythmia or junctional rhythm
1.02	Asymptomatic unifocal ventricular premature contractions
1.03	Wolff-Parkinson-White syndrome or Lown-Ganong-Levine syndrome
1.04	Asymptomatic multifocal ventricular premature contractions
2.01	Paroxysmal atrial fibrillation or flutter
2.02	Atrial fibrillation or flutter
2.03	Sick sinus syndrome
2.04	Supraventricular tachycardia
2.05	Symptomatic ventricular ectopy
3.01	Arrhythmias with ventricular fibrillation or flutter or shock
4.00	Arrhythmias with death

### References:

Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. *Mayo Clinic Proceedings*. 1996;71(2):184-196.

Josephson ME, Zimetbaum P, Marchlinski FE, Buxton AE. The bradyarrhythmias: disorders of sinus node function and AV conduction disturbances. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1253-1261.

Josephson ME, Zimetbaum P, Marchlinski FE, Buxton AE. The tachyarrhythmias. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1261-1278.

Massie BM, Amidon TM. Heart: disturbances of rate and rhythm. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:385-399.

McMurray J, Rankin A. Cardiology--II: treatment of heart failure and atrial fibrillation and arrhythmias. *BMJ*. 1994;309(6969):1631-1635.

Roden DM. Risks and benefits of antiarrhythmic therapy. *N Engl J Med*. 1994;331(12):785-791.

## Clinical Criteria with Description

DXCat Number: CVS07

DXCat Label: Cardiomyopathies

Etiology:

Congenital; Genetic (or hereditary); Immune; Infection;  
Toxicologic

### Stage Description

1.01	Transient hypertrophic cardiomyopathy of infancy
2.01	Cardiomyopathies
2.02	with first degree heart block or Mobitz I heart block or bundle branch block
2.03	with Mobitz II heart block
2.04	with supraventricular tachycardia or atrial fibrillation or atrial flutter
3.01	with complete heart block
3.02	with pulmonary embolism
3.03	with congestive heart failure
3.04	with non-sustained ventricular tachycardia
3.05	with respiratory failure
3.06	with sustained ventricular tachycardia
3.07	with ventricular fibrillation or ventricular flutter or shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: CVS07

DXCat Label: Cardiomyopathies

Etiology:

Congenital; Genetic (or hereditary); Immune; Infection;  
Toxicologic

Stage Description

### References:

Bernstein D. The Primary cardiomyopathies. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1354-1355.

Dec GW, Fuster V. Idiopathic dilated cardiomyopathy. N Engl J Med. 1994;331(23):1564-1575.

Maron BJ, Isner JM, McKenna WJ. 26th Bethesda conference: recommendations for determining eligibility for competition in athletes with cardiovascular abnormalities. Task Force 3: hypertrophic cardiomyopathy, myocarditis and other myopericardial diseases and mitral valve prolapse. Journal of the American College of Cardiology. 1994;24(4):880-885.

Massie BM, Amidon TM. Myocarditis and the cardiomyopathies. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:413-417.

Pisani B, Taylor DO, Mason JW. Inflammatory myocardial diseases and cardiomyopathies. American Journal of Medicine. 1997;102(5):459-469.

Richardson P et al. Report of the 1995 World Health Organization/International Society and Federation of Cardiology Task Force on the Definition and Classification of Cardiomyopathies. Circ. 1996; 93:841-842.

Wynne J, Braunwald E. The cardiomyopathies and myocarditides. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:1328-1334.

## Clinical Criteria with Description

DXCat Number: CVS08

DXCat Label: Conduction Disorders

Etiology:

Congenital; Degenerative; Idiopathic

### Stage Description

1.01	First degree heart block
1.02	Hemiblocks
1.03	Right bundle branch block
1.04	Left bundle branch block
2.01	Mobitz type I heart block
2.02	Mobitz type II heart block
2.03	Third degree heart block or complete heart block
3.01	Conduction disorders with shock
4.00	Conduction disorders with death

### References:

Perloff JK. Isolated congenital complete heart block. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:53-66.

Bernstein D. Cardiac arrhythmias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1335-1344.

Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. Mayo Clinic Proceedings. 1996;71(2):184-196.

Josephson ME, Zimetbaum P, Marchlinski FE, Buxton AE. "The bradyarrhythmias: disorders of sinus node function and AV conduction disturbances. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York: McGraw-Hill; 1998:1253-1261.

Massie BM, Amidon TM. Heart: conduction disturbances. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:399-401.

## Clinical Criteria with Description

DXCat Number: CVS09

DXCat Label: Congestive Heart Failure

Etiology:

Idiopathic

Stage	Description
3.01	Congestive heart failure
3.02	with azotemia or hyponatremia
3.03	with low ejection fraction
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

Braunwald E. Heart failure. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1287-1298.

Eichhorn EJ, Bristow MR. Medical therapy can improve the biological properties of the chronically failing heart. A new era in the treatment of heart failure. Circulation. 1996;94(9):2285-2296.

Massie BM, Amidon TM. Heart: cardiac failure. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998: 403-413.

## Clinical Criteria with Description

DXCat Number: CVS10

Etiology:

DXCat Label: Coronary Artery Disease with Prior Coronary Revascularization

Degenerative; Genetic (or hereditary)

### Stage Description

1.01	Coronary atherosclerosis or asymptomatic chronic ischemic heart disease or old myocardial infarction
1.02	Chronic stable exertional angina or chronic ischemic heart disease
2.01	Progressing angina pectoris or exertional myocardial ischemic at low workload or old myocardial infarction with low ejection fraction
2.02	Prinzmetal's variant angina
2.03	Angina with hypertrophy or akinesia or dyskinesia or S3 gallop or S4 gallop
2.04	Unstable angina pectoris
3.01	Acute inferior or posterior wall myocardial infarction
3.02	Acute inferior or posterior wall myocardial infarction with heart block or pericarditis
3.03	Acute inferior or posterior wall myocardial infarction with left ventricular thrombus
3.04	Acute inferior or posterior wall myocardial infarction with left ventricular aneurysm
3.05	Acute inferior or posterior wall myocardial infarction with CHF
3.06	Acute anterior wall myocardial infarction
3.07	Acute anterior wall or all other myocardial infarction with low ejection fraction
3.08	Acute anterior wall myocardial infarction with heart block or pericarditis
3.09	Acute anterior wall myocardial infarction with ventricular thrombus formation
3.10	Acute anterior wall myocardial infarction with ventricular aneurysm
3.11	Acute anterior wall myocardial infarction with CHF

## Clinical Criteria with Description

DXCat Number: CVS10

DXCat Label: Coronary Artery Disease with Prior Coronary Revascularization

Etiology:

Degenerative; Genetic (or hereditary)

### Stage Description

3.12	Acute myocardial infarction with pulmonary embolism
3.13	Acute myocardial infarction with cerebrovascular accident
3.14	Acute anterior myocardial infarction with papillary muscle rupture or ventricular septal rupture
3.15	Coronary artery disease with ventricular fibrillation or shock
3.16	Coronary artery disease with cardiac arrest
4.00	Coronary artery disease with death

### References:

Alpert JS, Cheitlin MD. Update in cardiology. *Ann Intern Med.* 1996;125(1):40-46.

Anonymous. North of England evidence based guidelines development project: summary version of evidence based guideline for the primary care management angina. North of England Stable Angina Guideline Development Group. *BMJ.* 1996;312(7034):827-832.

Antman EM, Braunwald E. acute myocardial infarction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1352-1365.

Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. *Mayo Clinic Proceedings.* 1996;71(2):184-196.

Grundy SM. Cholesterol and coronary heart disease. The 21st century. *Archives of Internal Medicine.* 1997;157(11):1177-1184.

Massie BM, Amidon TM. Heart: angina pectoris. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:363-385.

Selwyn AP, Braunwald E. Ischemic heart disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill, 1998:1365-1375.

## Clinical Criteria with Description

DXCat Number: CVS11

Etiology:

DXCat Label: Coronary Artery Disease without Prior Coronary Revascularization

Degenerative; Genetic (or hereditary)

### Stage Description

1.01	Old myocardial infarction or coronary atherosclerosis or chronic ischemic heart disease
1.02	Chronic stable exertional angina
2.01	Progressing angina pectoris or exertional myocardial ischemia at low workload or old myocardial infarction with low ejection fraction
2.02	Prinzmetal's variant angina
2.03	Angina with hypertrophy or akinesia or dyskinesia or S3 gallop or S4 gallop
2.04	Unstable angina pectoris
3.01	Acute inferior or posterior wall myocardial infarction
3.02	Acute inferior or posterior wall myocardial infarction with heart block or pericarditis
3.03	Acute inferior or posterior wall myocardial infarction with left ventricular thrombus
3.04	Acute inferior or posterior wall myocardial infarction with left ventricular aneurysm
3.05	Acute inferior or posterior wall myocardial infarction with CHF
3.06	Acute anterior wall myocardial infarction
3.07	Acute myocardial infarction with low ejection fraction
3.08	Acute anterior wall myocardial infarction with heart block pericarditis
3.09	Acute anterior wall myocardial infarction with ventricular thrombus formation
3.10	Acute anterior wall myocardial infarction with ventricular aneurysm
3.11	Acute anterior wall myocardial infarction with CHF

## Clinical Criteria with Description

DXCat Number: CVS11

Etiology:

DXCat Label: Coronary Artery Disease without Prior Coronary Revascularization

Degenerative; Genetic (or hereditary)

### Stage Description

3.12	Acute myocardial infarction with pulmonary embolism
3.13	Acute myocardial infarction with cerebrovascular accident
3.14	Acute anterior myocardial infarction with papillary muscle rupture or ventricular septal rupture
3.15	Coronary artery disease with ventricular fibrillation or shock
3.16	Coronary artery disease with cardiac arrest
4.00	Coronary artery disease with death

### References:

Alpert JS, Cheitlin MD. Update in cardiology. *Ann Intern Med.* 1996;125(1):40-46.

Anonymous. North of England evidence based guidelines development project: summary version of evidence based guideline for the primary care management angina. North of England Stable Angina Guideline Development Group. *BMJ.* 1996;312(7034):827-832.

Antman EM, Braunwald E. Acute myocardial infarction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1352-1365.

Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. *Mayo Clinic Proceedings.* 1996;71(2):184-196.

Grundy SM. Cholesterol and coronary heart disease. The 21st century. *Archives of Internal Medicine.* 1997;157(11):1177-1184.

Massie BM, Amidon TM. Heart: angina pectoris. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:363-385.

Selwyn AP, Braunwald E. Ischemic heart disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1365-1375.

## Clinical Criteria with Description

DXCat Number: CVS12

DXCat Label: Digoxin Toxicity

Etiology:

Toxicologic

### Stage Description

1.01	Digoxin toxicity
2.01	with unifocal PVCs
2.02	with Mobitz type I heart block
2.03	with multifocal PVCs
3.01	with Mobitz II or third degree heart block
3.02	with ventricular tachycardia
3.03	with ventricular fibrillation or flutter or shock
4.00	with death

### References:

- Linden CH, Lovejoy Jr. FH. Poisoning and drug overdosage. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th Ed. New York, NY: McGraw-Hill; 1998:2523-2544.
- Massie BM, Amidon TM. Heart failure. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:403-412.
- Sopher SM, Camm AJ. Atrial fibrillation: maintenance of sinus rhythm versus rate control. American Journal of Cardiology. 1996;77(3):24A-37A.

## Clinical Criteria with Description

DXCat Number: CVS13

DXCat Label: Essential Hypertension

Etiology:

Degenerative; Genetic (or hereditary); Idiopathic

### Stage Description

1.01	Hypertension, minimal
1.02	Hypertension, moderate
1.03	Hypertension, severe
2.01	Hypertension, very severe
2.02	Hypertensive retinopathy, Grade I or II of Keith and Wagener
2.03	Hypertensive retinopathy, Grade III or IV of Keith and Wagener
2.04	Hypertensive cardiomegaly, arrhythmias, or wall motion abnormalities
3.01	Hypertensive renal failure
3.02	Hypertensive congestive heart failure
3.03	Hypertensive CVA or Hypertensive encephalopathy
3.04	Hypertensive CVA with cranial nerve involvement
3.05	Hypertensive CVA with cerebellar or pyramidal tract dysfunction
3.06	Hypertensive CVA with hemiparesis or hemiplegia
3.07	Hypertensive CVA with amblyopia and contralateral hemiplegia
3.08	Hypertensive CVA with quadriplegia
3.09	with coma
4.00	with death

## Clinical Criteria with Description

DXCat Number: CVS13

DXCat Label: Essential Hypertension

Etiology:

Degenerative; Genetic (or hereditary); Idiopathic

### Stage Description

### References:

Massie BM. Systemic hypertension. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:429-448.

Moutquin JM, Garner PR, Burrows RF, et al. Report of the Canadian Hypertension Society Consensus Conference: 2. Nonpharmacologic management and prevention of hypertensive disorders in pregnancy. CMAJ. 1997;157(7):907-19.

Petersen LA. Recent advances. general medicine. BMJ. 317(7161):792-5, 1998 Sep 19.

Williams GH. Hypertensive vascular disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1380-1394.

## Clinical Criteria with Description

DXCat Number: CVS14

Etiology:

DXCat Label: Infective Endocarditis

Infection

Stage	Description
3.01	Infective endocarditis
3.02	with glomerulonephritis
3.03	with renal failure
3.04	with pulmonary embolism
3.05	with transient cerebral ischemic attacks
3.06	with myocarditis or myocardial abscess or valve obstruction or prosthetic valve dehiscence or acute mitral valve regurgitation or acute aortic valve regurgitation
3.07	with meningitis or intracranial abscess or intracranial infarction or intracranial hemorrhage
3.08	with congestive heart failure
3.09	with sepsis
3.10	with respiratory failure
3.11	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: CVS14

DXCat Label: Infective Endocarditis

Etiology:

Infection

### Stage Description

### References:

Berbari EF, Cockerill FR 3rd, Steckelberg JM. Infective endocarditis due to unusual or fastidious microorganisms. *Mayo Clinic Proceedings*. 1997;72(6):532-542.

Bernstein D. Infective endocarditis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*, 15th ed. Philadelphia, PA: WB Saunders; 1996:1344-47.

Chambers HF. Heart: infective endocarditis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:353-359.

Dajani AS, Taubert KA, Wilson W, et al. Prevention of bacterial endocarditis: a recommendation by the American Heart Association. *JAMA*, 1997;227(22):1794-1801.

Daniel WG, Muggé A. transesophageal echocardiography. *N Engl J Med*. 1995;332(19):1268-1679.

Durack DT, Lukes AS, Bright DK. New criteria for diagnosis of infective endocarditis: utilization of specific echocardiographic findings. Duke Endocarditis Service. *American Journal of Medicine*. 1994;96(3):200-9.

Kaye D. Infective endocarditis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*, 14th ed. New York, NY: McGraw-Hill; 1998:785-791.

Vongpatanasin W, Hillis LD, Lange RA. Prosthetic heart valves. *N Engl J Med*. 1996;335(6):407-16.

Wilson WR, Karchmer AW, Dajani AS, Taubert KA, Bayer A, Kaye D, Bisno AL, Ferrieri P, Shulman ST, Durack DT, Antibiotic treatment of adults with infective endocarditis due to streptococci, enterococci, staphylococci, and HACEK microorganisms. American Heart Association. *JAMA*. 1995;274(21):1706-1713.

## Clinical Criteria with Description

DXCat Number: CVS15

DXCat Label: Mitral Regurgitation

Etiology:

Congenital; Degenerative

Stage	Description
1.01	Mitral valve prolapse without regurgitation
1.02	Mild chronic mitral regurgitation
2.01	Mild chronic mitral regurgitation with left atrial enlargement
2.02	Moderate chronic mitral regurgitation
2.03	Mild chronic mitral regurgitation with atrial fibrillation
2.04	Moderate chronic mitral regurgitation with atrial fibrillation
2.05	Severe chronic mitral regurgitation
3.01	Severe acute mitral regurgitation
3.02	Mild chronic mitral regurgitation with congestive heart failure
3.03	Moderate chronic mitral regurgitation with congestive heart failure
3.04	Mitral regurgitation with low ejection fraction
3.05	Severe mitral regurgitation with congestive heart failure
3.06	Mitral regurgitation with sepsis
3.07	Mitral regurgitation with respiratory failure
3.08	Mitral regurgitation with shock
4.00	Mitral regurgitation with death

## Clinical Criteria with Description

DXCat Number: CVS15

DXCat Label: Mitral Regurgitation

Etiology:

Congenital; Degenerative

### Stage Description

### References:

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Braunwald E. Valvular heart disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1311-1324.

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Carabello BA, Crawford FA Jr. Valvular heart disease. N Engl J Med. 1997;337(1):32-41.

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Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. Mayo Clinic Proceedings. 1996;71(2):184-196.

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Massie BM, Amidon TM. Heart: valvular heart disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:344-353.

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## Clinical Criteria with Description

DXCat Number: CVS16

DXCat Label: Mitral Stenosis

Etiology:

Congenital; Degenerative

### Stage Description

1.01	Mild mitral stenosis or mitral atresia
2.01	Moderate mitral stenosis
2.02	Moderate mitral stenosis with left atrial enlargement
2.03	Moderate mitral stenosis with atrial fibrillation
2.04	Severe mitral stenosis
2.05	Severe mitral stenosis with atrial fibrillation
3.01	Severe mitral stenosis with congestive heart failure
3.02	Severe mitral stenosis with pulmonary hypertension
3.03	Severe mitral stenosis with systemic embolic phenomena
3.04	Severe mitral stenosis with respiratory failure
3.05	Severe mitral stenosis with shock
4.00	Severe mitral stenosis with death

### References:

Braunwald E. Valvular heart disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York: McGraw-Hill; 1998:1311-1324.

Carabello BA, Crawford FA Jr. Valvular heart disease. N Engl J Med. 1997;337(1):32-41.

Duncan AK, Vittone J, Fleming KC, Smith HC. Cardiovascular disease in elderly patients. Mayo Clinic Proceedings. 1996;71(2):184-196.

Massie BM, Amidon TM. Heart: valvular heart disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:344-353.

## Clinical Criteria with Description

DXCat Number: CVS17

DXCat Label: Periarteritis Nodosa

Etiology:

Immune

Stage	Description
1.01	Periarteritis nodosa or polyarteritis nodosa
1.02	with hypertension
2.01	with mononeuritis complex
2.02	with hepatitis
2.03	with nephritis
2.04	with peritonitis
3.01	with myocardial infarction
3.02	with congestive heart failure
3.03	with renal failure
3.04	with bleeding or ruptured aneurysm
3.05	with coma
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: CVS17

DXCat Label: Periarthritis Nodosa

Etiology:

Immune

### Stage Description

### References:

- Anonymous. Guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents. *Annals of Internal Medicine*. 1998;128(12):1079-1100.
- Centers for Disease Control and Prevention. CDC surveillance summaries: AIDS-defining opportunistic illnesses: 1992-1997, April 16, 1999. *MMWR*. 1999;48(No. SS-2).
- Fauci AS, Lane HC. Human immunodeficiency virus (HIV) disease: AIDS and related disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1791-1856.
- Gazzard B, Moyle G. 1998 revision to the British HIV Association guidelines for antiretroviral treatment of HIV seropositive individuals. BHIVA Guidelines Writing Committee. *Lancet*. 1998;352(9124):314-6.
- Havlic DV, Barnes PF. Tuberculosis in patients with human immunodeficiency virus infection. *N Engl J Med*. 1999;340(5):367-73.
- Katz MH, Hollander H. HIV infection. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1204-1231.
- Mellors J, Rinaldo C, Gupta P, White RM, Todd JA, Kingsley LA. Prognosis in HIV infection predicted by the quantity of virus in plasma. *Science*. 1996;373:123-126.
- Montaner JS, Hogg R, Raboud J, Harrigan R, O'Shaughnessy M. Antiretroviral treatment in 1998. *Lancet*. 1998;352(9144):1919-22.
- O'Brien W, Pomerantz RJ. AIDS and other diseases due to HIV infection. In: Neal Nathanson, ed. *Viral Pathogenesis*. New York, NY: Raven Press; 1997:813-837.

## Clinical Criteria with Description

DXCat Number: CVS18

DXCat Label: Pericarditis: Chronic

Etiology:

Infection; Idiopathic; Metabolic

### Stage Description

2.01	Chronic pericarditis
2.02	Constrictive pericarditis
2.03	with effusion
2.04	with mediastinitis
3.01	with myocarditis
3.02	with congestive heart failure
3.03	with anasarca
3.04	with respiratory failure
4.00	with death

### References:

Bernstein D. Diseases of the pericardium. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1355-1358.

Braunwald E. Pericardial disease. In: Fauci AS,

Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1334-1341.

Farrar RS, McCully RB, Oh JK, Smith TF. Mycoplasma-associated pericarditis. Mayo Clinic Proceedings. 1997;72(1):33-36.

Massie BM, Amidon TM. Diseases of the Pericardium. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:419-422.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Acquired heart disease. In: Hay WW, Groosthus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:516-524.

## Clinical Criteria with Description

DXCat Number: CVS19

DXCat Label: Pericarditis: Viral or Traumatic

Etiology:

Idiopathic; Infection, Viral; Trauma

### Stage Description

2.01	Acute pericarditis from viral infection or trauma or idiopathic pericarditis
2.02	with pericardial effusion
3.01	with myocarditis
3.02	with pericardial tamponade
3.03	with congestive heart failure
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

Bernstein D. Diseases of the pericardium. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1355-1358.

Braunwald E. Pericardial disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1334-1341.

Farraj RS, McCully RB, Oh JK, Smith TF. Mycoplasma-associated pericarditis. Mayo Clinic Proceedings. 1997;72(1):33-36.

Massie BM and Amidon TM. Diseases of the pericardium. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:419-422.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Acquired heart disease. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:516-524.

## Clinical Criteria with Description

DXCat Number: CVS20

DXCat Label: Raynaud's Disease

Etiology:

Idiopathic; Immune; Trauma

Stage	Description
1.01	Raynaud's disease or phenomenon
2.01	Gangrene of the digits
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

- Fraenkel L, Zhang Y, Chaisson CE, et al. Different factors influencing the expression of Raynaud's phenomenon in men and women. *Arthritis & Rheumatism*. 1999;42(2):306-10.
- Herrick AL, Clark S. Quantifying digital vascular disease in patients with primary Raynaud's phenomenon and systemic sclerosis. *Annals of the Rheumatic Diseases*. 1998;57(2):70-8.
- Kahaleh B, Matucci-Cerinic M. Raynaud's phenomenon and scleroderma. Dysregulated neuroendothelial control of vascular tone. *Arthritis & Rheumatism*. 1995;38(1):1-4.

## Clinical Criteria with Description

DXCat Number: CVS21

DXCat Label: Thromboangiitis Obliterans

Etiology:

Idiopathic

### Stage Description

1.01	Thromboangiitis obliterans
2.01	with stasis ulcerations
2.02	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Aqel MB, Olin JW. Thromboangiitis obliterans (Buerger's disease). *Vascular Medicine*. 1997;2(1):61-6.

Szuba A, Cooke JP. Thromboangiitis obliterans. An update on Buerger's disease. *Western Journal of Medicine*. 1998;168(4):255-60.

## Clinical Criteria with Description

DXCat Number: CVS22

DXCat Label: Thrombophlebitis

Etiology:

Idiopathic; Infection; Trauma

Stage	Description
1.01	Superficial thrombophlebitis
2.01	Deep vein thrombosis
2.02	with stasis ulceration or cellulitis
2.03	Portal vein thrombosis or vena cava thrombosis or of renal vein thrombosis
3.01	with pulmonary embolism
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Kearon C, Julian JA, Newman TE, Ginsberg JS. Noninvasive diagnosis of deep venous thrombosis. McMaster diagnostic imaging practice guidelines initiative. *Annals of Internal Medicine*. 1998;128(8):663-77.

Koopman MM, Buller HR. Low-molecular-weight heparins in the treatment of venous thromboembolism. *Annals of Internal Medicine*. 1998;128(12 Pt 1):1037-9.

## Clinical Criteria with Description

DXCat Number: CVS23

DXCat Label: Tibial, Iliac, Femoral, or Popliteal Artery Disease

Etiology:

Degenerative

Stage	Description
1.01	Intermittent claudication
1.02	Persistent claudication
2.01	with ischemic ulceration
2.02	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Anonymous. Thrombolysis in the management of lower limb peripheral arterial occlusion--a consensus document. Working Party on Thrombolysis in the Management of Limb Ischemia. *American Journal of Cardiology*. 1998;81(2):207-18.

Cantwell-Gab K. Identifying chronic peripheral arterial disease. *American Journal of Nursing*. 1996;96(7):40-6; quiz 47.

Golledge J. Lower-limb arterial disease. *Lancet*. 1997;350(9089):1459-65.

## Clinical Criteria with Description

DXCat Number: CVS24

DXCat Label: Varicose Veins of Lower Extremities

Etiology:

Degenerative; Genetic (or hereditary)

Stage	Description
1.01	Varicose veins
1.02	with superficial thrombophlebitis
2.01	with chronic venous insufficiency
2.02	with stasis ulcers
2.03	with cellulitis
2.04	with deep vein thrombosis
3.01	with pulmonary embolism
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Angle N, Bergan JJ. Chronic venous ulcer. BMJ. 1997;314(7086):1019-23.

Bradbury A, Evans C, Allan P, et al. What are the symptoms of varicose veins? Edinburgh vein study cross sectional population survey. BMJ. 1999;318(7180):353-6.

Chant AD. Venous insufficiency and perforating veins. British Journal of Surgery. 1998;85(12):1721.

## Clinical Criteria with Description

DXCat Number: CVS80

Etiology:

DXCat Label: Neoplasm, Benign, Cardiovascular System

Stage	Description
1.01	Benign neoplasm of cardiovascular system

References:

## Clinical Criteria with Description

DXCat Number: CVS81

Etiology:

DXCat Label: Neoplasm, Malignant, Cardiovascular

Stage	Description
1.01	Primary malignant neoplasm of heart
2.01	with lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: CVS82

Etiology:

DXCat Label: Other Atherosclerosis

Stage	Description
1.01	Other atherosclerosis of peripehral or renal arteries or of bypass grafts of extremities
2.01	Atheroembolisms of kidney and other sites; hypersensitivity angiitis

### References:

## Clinical Criteria with Description

DXCat Number: CVS83

Etiology:

DXCat Label: Other Cardiac Conditions

### Stage Description

1.01	Kyphoscoliotic heart disease or chronic pulmonary heart disease; nonrheumatic valve disorder, heart or other coronary transplant or implanted device status
2.01	Aneurysm of heart wall or coronary vessel, cardiomegaly, ill-defined heart disease
3.01	Acute cor pulmonale, dissection of coronary artery, myocarditis or endocarditis not specified as infective, heart failure, septal defect, sequelae of AMI

### References:

## Clinical Criteria with Description

DXCat Number: CVS84

Etiology:

DXCat Label: Other Cardiovascular Symptoms

Stage	Description
1.01	Tachycardia, palpitations, murmurs, enlarged lymph nodes
3.01	Shock

References:

## Clinical Criteria with Description

DXCat Number: CVS85

Etiology:

DXCat Label: Other Circulatory Disorders

Stage	Description
1.01	Hypotension

References:

## Clinical Criteria with Description

DXCat Number: CVS86

Etiology:

DXCat Label: Other Diseases of Arteries

Stage	Description
1.01	Aneurysms, embolisms, arterial strictures
3.01	Arterial dissections

References:

## Clinical Criteria with Description

DXCat Number: CVS87

Etiology:

DXCat Label: Other Diseases of Veins

Stage	Description
1.01	Hemorrhage, vein compression, postphlebitic syndrome; venous hypertension or insufficiency, varices without bleed, other circulatory diseases
2.01	Postphlebitic syndrome or chronic venous hypertension with ulcer, varices with bleed

References:

## Clinical Criteria with Description

DXCat Number: CVS88

Etiology:

DXCat Label: Other Disorders of Pulmonary Circulation

Stage	Description
1.01	Disorder of pulmonary circulation
2.01	Pulmonary artery aneurysm or arteriovenous fistula of pulmonary vessel

### References:

## Clinical Criteria with Description

DXCat Number: CVS89

Etiology:

DXCat Label: Secondary Hypertension

Stage	Description
1.01	Secondary hypertension, minimal
1.02	Secondary hypertension, moderate
1.03	Secondary hypertension, severe
2.01	Secondary hypertension, very severe
2.02	Hypertensive retinopathy, Grade I or II of Keith and Wagener
2.03	Hypertensive retinopathy, Grade III or IV of Keith and Wagener
2.04	Hypertensive cardiomegaly, arrhythmias, or wall motion abnormalities
3.01	with renal failure
3.02	with CHF
3.03	with CVA or encephalopathy
3.04	with CVA and cranial nerve involvement
3.05	with CVA and cerebellar or pyramidal tract dysfunction
3.06	with CVA and hemiparesis or hemiplegia
3.07	with CVA and amblyopia and contralateral hemiplegia
3.08	with CVA and quadriplegia
3.09	with coma
4.00	with death

## Clinical Criteria with Description

DXCat Number: CVS89

Etiology:

DXCat Label: Secondary Hypertension

Stage Description

References:

## Clinical Criteria with Description

DXCat Number: DEN01

DXCat Label: Anomaly: Cleft Lip or Palate

Etiology:

Congenital

### Stage Description

1.01	Cleft lip
1.02	Cleft palate
1.03	Cleft lip and palate
2.01	with recurrent otitis media and hearing loss
2.02	with other deformities of the maxilla or mandible or pharynx
2.03	with aspiration pneumonia
3.01	with sepsis
3.02	with respiratory failure
3.03	with shock
4.00	Cleft lip or palate and death

### References:

Milerad J, Larson O, Hagberg C, Ideberg M. Associated malformations in infants with cleft lip and palate: a prospective, population-based study. *Pediatrics*. 1997;100(2 Pt 1):180-6.

## Clinical Criteria with Description

DXCat Number: DEN02

DXCat Label: Dental Disease

Etiology:

Infection

Stage	Description
1.01	Dental caries or tooth decay
1.02	Pulpitis
1.03	Dental-alveolar abscess

### References:

Greenspan JS. Oral manifestations of disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:185-190.

## Clinical Criteria with Description

DXCat Number: DEN03

Etiology:

DXCat Label: Diseases of the Salivary Gland or Parotitis Including Benign Tumors

Genetic (or hereditary); Idiopathic; Infection

Stage	Description
1.01	Sialolithiasis
1.02	Viral parotitis
1.03	Recurrent sialoadenitis
2.01	Suppurative parotitis
2.02	Mixed salivary gland benign tumors

### References:

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:244-245.

McEwen DR, Sanchez MM. A guide to salivary gland disorders. AORN Journal. 1997;65(3):554-6, 559-67; quiz 568-9, 571-2.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

## Clinical Criteria with Description

DXCat Number: DEN04

DXCat Label: Gingival and Periodontal Disease

Etiology:

Infection

### Stage Description

1.01	Gingivitis
1.02	Herpetic gingivostomatitis
1.03	Periodontitis
1.04	Periodontitis with abscess formation
1.05	Vincent's angina or trench mouth

### References:

Greenspan JS. Oral manifestations of disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:185-190.

Sheiham A. The future of preventive dentistry. BMJ. 1994;309(6949):214-5.

## Clinical Criteria with Description

DXCat Number: DEN05

Etiology:

DXCat Label: Neoplasm, Malignant: Hypopharynx

Neoplasm

Stage	Description
0.00	History of cancer of the hypopharynx
1.01	Confined to one site
2.01	Involving two sites
2.02	with extension
3.01	with distant metastasis
3.02	with shock
4.00	and death

### References:

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:244-245.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

Zbaren P, Becker M, Lang H. Pretherapeutic staging of hypopharyngeal carcinoma. Clinical findings, computed tomography, and magnetic resonance imaging compared with histopathologic evaluation. Archives of Otolaryngology -- Head & Neck Surgery. 1997;123(9):908-13.

## Clinical Criteria with Description

DXCat Number: DEN06

DXCat Label: Neoplasm, Malignant: Oral Cavity

Etiology:

Neoplasm

Stage	Description
0.00	History of cancer of the oral cavity
1.01	Cancer of the oral cavity < 2 cm in diameter
2.01	Tumor $\geq$ 2 cm in diameter and < 4 cm in diameter
3.01	Tumor $\geq$ 4 cm in diameter
3.02	with invasion of adjacent tissues or beyond
3.03	with shock
4.00	and death

### References:

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

## Clinical Criteria with Description

DXCat Number: DEN07

Etiology:

DXCat Label: Neoplasm, Malignant: Oropharynx

Neoplasm

Stage	Description
0.00	History of cancer of the oropharynx
1.01	Confined to one site
2.01	Involving two sites
2.02	with extension
3.01	with distant metastasis
3.02	with shock
4.00	and death

### References:

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

Zbaren P, Becker M, Lang H. Pretherapeutic staging of hypopharyngeal carcinoma. Clinical findings, computed tomography, and magnetic resonance imaging compared with histopathologic evaluation. Archives of Otolaryngology -- Head & Neck Surgery. 1997;123(9):908-13.

## Clinical Criteria with Description

DXCat Number: DEN08

Etiology:

DXCat Label: Neoplasm, Malignant: Salivary Glands and Mandible

Neoplasm

### Stage Description

0.00	History of cancer of the salivary gland
1.01	Solitary salivary gland cancers < 4 cm in diameter without invasion
2.01	Tumor $\geq$ 4 cm in diameter and < 6 cm in diameter without local invasion or < 4 cm in diameter with local invasion
2.02	with < 4 cm in diameter and one metastatic node or > 6 cm in diameter with local invasion
2.03	Tumor $\geq$ 6 cm in diameter with local invasion and one lymph node or > 1 lymph node involvement or with facial paralysis or distant metastasis
3.01	with distant metastasis
3.02	with shock
4.00	and death

### References:

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:244-245.

McEwen DR, Sanchez MM. A guide to salivary gland disorders. AORN Journal. 1997;65(3):554-6, 559-67; quiz 568-9, 571-2.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

## Clinical Criteria with Description

DXCat Number: DEN80

Etiology:

DXCat Label: Anomaly: Other Dentofacial

Stage	Description
1.01	Dentofacial anomalies other than cleft lip or palate

References:

## Clinical Criteria with Description

DXCat Number: DEN81

Etiology:

DXCat Label: Other Disorders of Oral Cavity

Stage	Description
1.01	Disorders of tooth eruption and dentition, other oral cavity conditions
2.01	Stomatitis, cellulitis or abscess or mouth

### References:

## Clinical Criteria with Description

DXCat Number: END01

DXCat Label: Adrenal Insufficiency

Etiology:

Metabolic

### Stage Description

1.01	Primary adrenal insufficiency or Addison's disease
1.02	Secondary adrenal insufficiency
2.01	with hyponatremia or hyperkalemia or hypochloremia
3.01	Addisonian crisis
3.02	with renal failure
4.00	with death

### References:

Fitzgerald PA. Adrenocortical hypofunction. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1072-1075.

White PC. Disorders of aldosterone biosynthesis and action. N Engl J Med. 1994;331(4):250-258.

Williams GH, Dluhy RG. Diseases of the adrenal cortex. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998: 2035-2057.

## Clinical Criteria with Description

DXCat Number: END02

DXCat Label: Cushing's Syndrome

Etiology:

Metabolic; Neoplasm

### Stage Description

1.01	Cushing's Syndrome
1.02	Cushing's Disease
2.01	with growth retardation
2.02	with osteoporosis
2.03	with diabetes mellitus or hypertension or hypokalemia
2.04	with vertebral fractures
2.05	with visual field defects
3.01	with Nelson's syndrome
3.02	with coma
3.03	with shock
4.00	with death

### References:

Fitzgerald PA. Cushing's syndrome. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1075-1076.  
Orth DN, Kovacs WJ, DeBold CR. The adrenal cortex. In: Wilson JD, Foster DW, eds. Williams Textbook of Endocrinology. 8th ed. Philadelphia, PA: WB Saunders; 1992:489-620.  
Orth DN. Cushing's syndrome. N Engl J Med. 1995;332(12):791-803.  
Williams GH, Dluhy RG. Disorders of adrenal cortex. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2035-2057.

## Clinical Criteria with Description

DXCat Number: END03

DXCat Label: Diabetes insipidus

Etiology:

Metabolic

### Stage Description

1.01	Primary diabetes insipidus
1.02	Secondary diabetes insipidus
1.03	Vasopressinase induced diabetes insipidus
1.04	Nephrogenic diabetes insipidus
2.01	with hyponatremia
2.02	with hypernatremia
2.03	with azotemia or dehydration
3.01	with renal failure
3.02	with shock
4.00	with death

### References:

- Fitzgerald PA. Diabetes insipidus. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1037-1039.
- Fitzgerald PA. Diabetes insipidus. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1037-1039.
- Moses AM, Streeten DHP. Disorders of the neurohypophysis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2003-2012.
- Singer I, Oster JR, Fishman LM. The management of diabetes insipidus in adults. Archives of Internal Medicine. 1997;157(12):1293-1301.

## Clinical Criteria with Description

DXCat Number: END04

Etiology:

DXCat Label: Diabetes Mellitus Type 1

Metabolic

### Stage Description

1.01	Type 1 diabetes mellitus
1.02	Symptomatic diabetes mellitus
1.03	with history of ketoacidosis or pancreatic islet cell antibodies
2.01	with retinopathy
2.02	with neuropathy
2.03	with glomerulosclerosis
2.04	with vascular disease (peripheral, cardiovascular, or cerebral)
2.05	with cellulitis
2.06	with pyelonephritis
2.07	with gangrenous infection
2.08	with osteomyelitis
3.01	with renal failure
3.02	with hyperosmolar state
3.03	with ketoacidosis
3.04	with acute myocardial infarction
3.05	with acute cerebral vascular accident
3.06	with sepsis

## Clinical Criteria with Description

DXCat Number: END04

Etiology:

DXCat Label: Diabetes Mellitus Type 1

Metabolic

Stage	Description
3.07	with coma
3.08	with hyperosmolar coma
3.09	with shock
4.00	with death

### References:

Anonymous. Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care*. 2003;26[1]Suppl 1]:S5-20.

Foster DW. Diabetes mellitus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2060-81. Foster DW. Diabetes mellitus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2060-81.

Gallichan M. Self monitoring of glucose by people with diabetes: evidence based practice. *BMJ*. 1997;314(7085):964-947.

Grossman E. Messerli FH. Diabetic and hypertensive heart disease. *Annals of Internal Medicine*. 1996;125[4]:304-10.

Karam J. Diabetes mellitus and hypoglycemia. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1095-1138.

Unger RH, Foster DW. Diabetes mellitus. In: Wilson JD, Foster DW, eds. *Williams Textbook of Endocrinology*. 8th ed. Philadelphia, PA: WB Saunders; 1992:1255.

## Clinical Criteria with Description

DXCat Number: END05

Etiology:

DXCat Label: Diabetes Mellitus Type 2 and Hyperglycemic States

Metabolic

Stage	Description
1.01	Impaired fasting glucose
1.02	Impaired glucose tolerance
1.03	Asymptomatic diabetes mellitus
1.04	Symptomatic diabetes mellitus
2.01	with retinopathy
2.02	with neuropathy
2.03	with glomerulosclerosis
2.04	with vascular disease (peripheral, cardiovascular, or cerebral)
2.05	with cellulitis
2.06	with pyelonephritis
2.07	with gangrenous infection
2.08	with osteomyelitis
3.01	with renal failure
3.02	with hyperosmolar state
3.03	with ketoacidosis
3.04	with acute myocardial infarction
3.05	with acute cerebral vascular accident

## Clinical Criteria with Description

DXCat Number: END05

Etiology:

DXCat Label: Diabetes Mellitus Type 2 and Hyperglycemic States

Metabolic

Stage	Description
3.06	with sepsis
3.07	with coma
3.08	with hyperosmolar coma
3.09	with shock
4.00	with death

### References:

Anonymous. Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care*. 2003;26[1]Suppl 1]:S5-20.

Foster DW. Diabetes mellitus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2060-81.

Gallichan M. Self monitoring of glucose by people with diabetes: evidence based practice. *BMJ*. 1997;314(7085):964-947.

Grossman E, Messerli FH. Diabetic and hypertensive heart disease. *Annals of Internal Medicine*. 1996;125[4]:304-10.

Karam J. Diabetes mellitus and hypoglycemia. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998: 1095-1138.

Siperstein MD. Diabetic ketoacidosis and hyperosmolar coma. *Endocrinology & Metabolism Clinics of North America*. 1992;21(2):415-432.

Unger RH, Foster DW. Diabetes mellitus. In: Wilson JD, Foster DW, eds. *Williams Textbook of Endocrinology*. 8th ed. Philadelphia, PA: WB Saunders; 1992:1255.

## Clinical Criteria with Description

DXCat Number: END06

DXCat Label: Goiter: Nontoxic or Euthyroid

Etiology:

Idiopathic

Stage	Description
1.01	Euthyroid goiter
1.02	Multinodular goiter
2.01	with compression of the trachea or esophagus
3.01	with respiratory failure
3.02	with shock
4.00	with death

### References:

Fitzgerald PA. The nodular thyroid. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1046-1047.  
Larsen PR and Ingbar SH. The thyroid gland. In: Wilson JD, Foster DW, eds. Williams Textbook of Endocrinology. 8th ed. Philadelphia, PA: WB Saunders; 1992;357-488.  
Wartofsky L. Diseases of the thyroid. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2012-2035.

## Clinical Criteria with Description

DXCat Number: END07

DXCat Label: Hyperthyroidism

Etiology:

Immune; Metabolic

### Stage Description

1.01	Primary Hyperthyroidism
1.02	Secondary Hyperthyroidism
2.01	with infiltrating dermopathy
2.02	with infiltrating ophthalmopathy
2.03	with compressive optic neuropathy
2.04	with atrial fibrillation
3.01	with thyroid storm
3.02	with congestive heart failure
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

### References:

Fitzgerald PA. Hyperthyroidism. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1051-1057.

Klein I, Becker DV, Levey GS. Treatment of hyperthyroid disease. Annals of Internal Medicine. 1994;121(4):281-288.

Lazarus JH. Hyperthyroidism. Lancet. 1997;349(9048):339-343.

Vanderpump MP, Ahlquist JA, Franklyn JA, Clayton RN. Consensus statement for good practice and audit measures in the management of hypothyroidism and hyperthyroidism. The Research Unit of the Royal College of Physicians of London, the Endocrinology and Diabetes Committee of the Royal College of Physicians of London, and the Society for Endocrinology. BMJ. 1996;313(7056):539-544.

Wartofsky L. Diseases of the thyroid. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2012-2035.

## Clinical Criteria with Description

DXCat Number: END08

DXCat Label: Hypoglycemia

Etiology:

Metabolic; Toxicologic; Neoplasm

### Stage Description

1.01	Reactive or other hypoglycemia secondary to meals, abnormal nutrient metabolism, increased glucose utilization, chemicals or drugs, or deficient glucose production
1.02	Hypoglycemia secondary to increased glucose utilization
1.03	Reactive hypoglycemia secondary to abnormal nutrient metabolism
1.04	Reactive hypoglycemia secondary to chemicals or drugs
1.05	Reactive hypoglycemia secondary to deficient glucose production
1.06	Hypoglycemia secondary to excessive glucose utilization
1.07	Hypoglycemia secondary to deficient glucose production
2.01	Symptomatic hypoglycemia
3.01	Hypoglycemia and loss of consciousness
3.02	Hypoglycemia and coma
3.03	Hypoglycemia with shock
4.00	Hypoglycemia with death

### References:

Cryer PE. Diabetes mellitus and Hypoglycemia. In: Wilson JD, Foster DW, eds. Williams Textbook of Endocrinology, 8th Ed.

Foster DW, Rubenstein AH " Hypoglycemia." In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th Ed. New York: McGraw-Hill, 1998:2081-87.

Karam J. Diabetes Mellitus and Hypoglycemia. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange,. 1998: 1095-1138.

Service FJ. Hypoglycemia. Medical Clinics of North America. 1995;79(1):1-8.

## Clinical Criteria with Description

DXCat Number: END09

DXCat Label: Hypothyroidism

Etiology:

Congenital; Immune

### Stage Description

1.01	Asymptomatic primary hypothyroidism
1.02	Secondary hypothyroidism
2.01	Symptomatic hypothyroidism
2.02	Cretinism
2.03	with abdominal effusion
2.04	with pericardial or pleural effusion
3.01	with congestive heart failure
3.02	with respiratory failure
3.03	with myxedema madness
3.04	with myxedema coma
3.05	with shock
4.00	with death

### References:

Fitzgerald PA. Hypothyroidism and myxedema. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1049-1051.

Lindsay RS, Toft AD. Hypothyroidism. Lancet. 1997;349(9049):413-417.

Wartofsky L. Diseases of the thyroid. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2012-2035.

Weetman AP. Hypothyroidism: screening and subclinical disease. BMJ. 1997;314(7088):1175-1178.

Woeber KA. Subclinical thyroid dysfunction. Archives of Internal Medicine. 1997;157(10):1065-1068.

## Clinical Criteria with Description

DXCat Number: END10

Etiology:

DXCat Label: Monotropic Hormone Deficiency

### Stage Description

1.01	Monotropic hormone deficiency
2.01	Hypopituitarism with pituitary adenoma
2.02	Hypopituitarism with bilateral hemianopsia
3.01	Panhypopituitarism
3.02	with shock
4.00	with death

### References:

Biller BM, Daniels GH. Neuroendocrine regulation and diseases of the anterior pituitary and hypothalamus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1972-1999.

Fitzgerald PA. Hypopituitarism. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1035-1037.

Van den Berghe G, de Zegher F. Anterior pituitary function during critical illness and dopamine treatment. Critical Care Medicine. 1996;24(9):1580-1590.

Vance ML. Hypopituitarism. N Engl J Med. 1994;330(23):1651-1662.

## Clinical Criteria with Description

DXCat Number: END11

DXCat Label: Neoplasm, Benign: Acromegaly

Etiology:

Congenital; Neoplasm; Metabolic

### Stage Description

1.01	Acromegaly
1.02	with osteoarthritis or carpal tunnel syndrome
2.01	with hypertension
2.02	with diabetes mellitus
2.03	with thyroid dysfunction
3.01	with myocardial infarction
3.02	with congestive heart failure
3.03	with new cerebrovascular accident
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

- Anonymous. Consensus statement: benefits versus risks of medical therapy for acromegaly. Acromegaly Therapy Consensus Development Panel. American Journal of Medicine. 1994;97(5):468-473.
- Biller BMK, Daniels GH. Neuroendocrine regulation and diseases of the anterior pituitary and hypothalamus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1972-1999.
- Fitzgerald PA. Acromegaly and gigantism. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1039-1041.
- Lamberts SW, van der Lely AJ, de Herder WW, Hofland LJ. Octreotide. N Engl J Med. 1996;334(4):246-254.
- Melmed S, Ho K, Klibanski A, Reichlin S, Thorner M. Journal of Clinical Endocrinology & Metabolism. 1995;80(12):3395-4023.
- Silverman BL, Friedlander JR. Is growth hormone good for the heart? Journal of Pediatrics. 1997;131(1 Pt 2):S70-S74.

## Clinical Criteria with Description

DXCat Number: END12

Etiology:

DXCat Label: Neoplasm, Benign: Adenoma, Parathyroid, or Hyperparathyroidism

Neoplasm

### Stage Description

1.01	Single parathyroid adenoma or hyperparathyroidism
1.02	Multiple parathyroid adenomas
2.01	with clinical manifestations
3.01	with renal failure
3.02	with coma
3.03	with shock
4.00	with death

### References:

al Zahrani A, Levine MA. Primary hyperparathyroidism. *Lancet*. 1997;349(9060):1233-1238.

Chan FK, Koberle LM, Thys-Jacobs S, Bilezikian JP. Differential diagnosis, causes, and management of hypercalcemia. *Current Problems in Surgery*. 1997;34(6):445-523.

Fitzgerald PA. Hyperparathyroidism. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1064-1067.

Potts Jr JT. Diseases of the parathyroid gland and other hyper and hypocalcemic disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2227-2247.

Shen W, Duren M, Morita E, Higgins C, Duh QY, Siperstein AE, Clark OH. Reoperation for persistent or recurrent primary hyperparathyroidism. *Archives of Surgery*. 1996;131(8):861-7.

## Clinical Criteria with Description

DXCat Number: END13

Etiology:

DXCat Label: Neoplasm, Benign: Primary Hyperaldosteronism

Neoplasm

### Stage Description

1.01	Primary hyperaldosteronism or Conn's syndrome
2.01	with hypernatremia or hyperchloremia or hypokalemia or alkalosis
2.02	with paresthesia or weakness
2.03	with tetany
2.04	with ventricular ectopy
3.01	with renal failure
3.02	with shock
4.00	with death

### References:

Fitzgerald PA. Primary hyperaldosteronism. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1079-1080.

Fitzgerald PA. Primary hyperaldosteronism. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1079-1080.

Kaplan NM. Endocrine hypertension. In: Wilson JD, Foster DW, eds. Williams Textbook of Endocrinology. 8th ed. Philadelphia, PA: WB Saunders; 1992:707-732.

White PC. Disorders of aldosterone biosynthesis and action. N Engl J Med. 1994;331(4):250-258.

Williams GH, Dluhy RG. Diseases of the adrenal cortex. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2035-2057.

Zimmerman RS. Hormonal and humeral considerations in hypertensive disease. Medical Clinics of North America. 1997;81(5):1213-1230.

## Clinical Criteria with Description

DXCat Number: END14

DXCat Label: Neoplasm, Malignant: Thyroid

Etiology:

Neoplasm

### Stage Description

0.00	History of thyroid carcinoma
1.01	Thyroid adenoma
1.02	Papillary thyroid carcinoma ≤ 1.05 cm in diameter
1.03	Papillary thyroid carcinoma > 1.05 cm in diameter
2.01	Follicular thyroid carcinoma
2.02	Medullary carcinoma of the thyroid
2.03	Anaplastic carcinoma of the thyroid
2.04	with involvement of regional lymph nodes
3.01	with distant metastasis
3.02	with shock
4.00	with death

### References:

- Fitzgerald PA. Thyroid cancer. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1057-1059.
- Giuffrida D, Gharib H. Controversies in the management of cold, hot, and occult thyroid nodules. American Journal of Medicine. 1995;99(6):642-650.
- Heshmati HM, Gharib H, van Heerden JA, Sizemore GW. Advances and controversies in the diagnosis and management of medullary thyroid carcinoma. American Journal of Medicine. 1997;103(1):60-69.
- Schlumberger MJ. Medical progress: papillary and follicular thyroid carcinoma. New Engl J Med. 1998;338(5):297-306.
- Wartofsky L. Diseases of the thyroid. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2012-2035.

## Clinical Criteria with Description

DXCat Number: END15

DXCat Label: Neoplasm: Pheochromocytoma

Etiology:

Neoplasm

### Stage Description

1.01	Adrenal pheochromocytoma
1.02	Extra-adrenal pheochromocytoma
1.03	with hypertension
2.01	with impaired glucose tolerance
2.02	with bundle branch block
2.03	with supraventricular tachyarrhythmias or ventricular ectopy
2.04	with angina pectoris
2.05	with cardiomyopathy
3.01	with myocardial infarction
3.02	with congestive heart failure
3.03	with shock
4.00	with death

### References:

Eng C. Seminars in medicine of the Beth Israel Hospital, Boston. The RET proto-oncogene in multiple endocrine neoplasia type 2 and Hirschsprung's disease. N Engl J Med. 1996;335(13):943-951.

Fitzgerald PA. Pheochromocytoma. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1080-1083.

Landsberg L, Young JB. "Pheochromocytoma. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2057-2060.

Young WF Jr, Maddox DE. Spells: in search of a cause. Mayo Clinic Proceedings. 1995;70(8):757-765.

## Clinical Criteria with Description

DXCat Number: END16

DXCat Label: Primary Amyloidosis

Etiology:

Idiopathic

### Stage Description

1.01	Amyloidosis
2.01	with hepatosplenomegaly
2.02	with nephrotic syndrome
2.03	with pulmonary involvement
2.04	with intestinal obstruction
3.01	Amyloidosis of the heart
3.02	with renal failure
3.03	with congestive heart failure
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

- Adelman DC, Terr A. Amyloidosis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:750-751.
- Falk RH, Comenzo RL, Skinner M. The systemic amyloidoses. N Engl J Med. 1997;337(13):898-909.
- Kushwaha SS, Fallon JT, Fuster V. Restrictive cardiomyopathy. N Engl J Med. 1997;336(4):267-276.
- Sipe JD, Cohen AS. Amyloidosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1856-1860.

## Clinical Criteria with Description

DXCat Number: END17

DXCat Label: Thyroiditis

Etiology:

Immune; Infection

### Stage Description

1.01	Silent thyroiditis
1.02	Subacute thyroiditis
1.03	Hashimoto's thyroiditis or chronic lymphocytic thyroiditis
1.04	Thyroiditis with hypothyroidism
1.05	Riedel's thyroiditis

### References:

Fitzgerald PA. Thyroiditis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:344-353.

Walfish PG. Thyroiditis. Current Therapy in Endocrinology & Metabolism. 1997;6:117-122.

Wartofsky L. Diseases of the thyroid. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2012-2035.

## Clinical Criteria with Description

DXCat Number: END18

DXCat Label: Vitamin D Deficiency

Etiology:

Metabolic; Nutritional

### Stage Description

1.01	Vitamin D deficiency
2.01	with rickets or osteoporosis or osteomalacia
2.02	with pathologic fractures
2.03	with hypocalcemia
2.04	with rachitic tetany
3.01	with respiratory failure
3.02	with shock
4.00	with death

### References:

Aurbach GD, Marx SJ, Spiegel AM. Parathyroid hormone, calcitonin and the calciferols. In: Williams Textbook of Endocrinology. Wilson JD, Foster DW, eds. 8th ed. Philadelphia, PA: WB Saunders; 1992:1397-1476.

Baron RB. Nutrition. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1150-1180.

Krane SM, Holick MF. Metabolic bone disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2247-2259.

Thomas MK, Lloyd-Jones DM, Thadhani RI, Shaw AC, Deraska DJ, Kitch BT, Vamvakas EC, Dick IM, Prince RL, Finkelstein JS. Hypovitaminosis D in medical inpatients. N Engl J Med. 1998; 338 (12) 777.

## Clinical Criteria with Description

DXCat Number: END80

Etiology:

DXCat Label: Neoplasm, Benign: Other Endocrine System

Stage	Description
1.01	Benign neoplasm of endocrine system

References:

## Clinical Criteria with Description

DXCat Number: END81

Etiology:

DXCat Label: Neoplasm, Malignant: Other Endocrine System

Stage	Description
1.01	Primary malignant neoplasm of parathyroid, pituitary, pineal gland and other endocrine structures
2.01	with lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: END82

Etiology:

DXCat Label: Other Endocrine Disorders

Stage	Description
1.01	Other disorders of thyroid, parathyroid, pituitary and other endocrine functions

References:

## Clinical Criteria with Description

DXCat Number: ENT01

DXCat Label: Cholesteatoma

Etiology:

Neoplasm

### Stage Description

1.01	Cholesteatoma localized to middle ear space
1.02	Cholesteatoma lateral to ossicles
1.03	Cholesteatoma medial to ossicles
1.04	with erosion into attic
1.05	with erosion into mastoid
2.01	with facial nerve paralysis
2.02	with labyrinthitis

### References:

Albino AP, Kimmelman CP, Parisier SC. Cholesteatoma: a molecular and cellular puzzle. *American Journal of Otology*. 1998;19(1):7-19.

Albino AP, Kimmelman CP, Parisier SC. Cholesteatoma: a molecular and cellular puzzle. *American Journal of Otology*. 1998;19(1):7-19.

Durand M, Joseph M, Baker AS. Infections of the upper respiratory tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:179-185.

Durand M, Joseph M, Baker AS. Infections of the upper respiratory tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:179-185.

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:220-221.

## Clinical Criteria with Description

DXCat Number: ENT02

DXCat Label: Deviated Nasal Septum

Etiology:

Congenital; Trauma

### Stage Description

1.01	Deviated nasal septum with mild obstruction of one nasal cavity
1.02	with mild obstruction of both nasal cavities
1.03	with moderate obstruction of both nasal cavities
1.04	severe obstruction of one nasal cavity
1.05	severe obstruction of both nasal cavities
1.06	with sinusitis*

### References:

Bomer KV, Naclerio RM. Embryology, Anatomy, and Physiology of the Upper Airway. In Middleton: Allergy: Principles and Practice, 5th ed., 1998, Mosby-Year Book, Inc. p. 544-560.  
Seidman, MD, Simpson GT, Khan MJ. Otolaryngology. In Noble: Textbook of Primary Care Medicine, 3rd ed., 2001 Mosby, Inc. p.1744-1753.

## Clinical Criteria with Description

DXCat Number: ENT03

DXCat Label: Diphtheria

Etiology:

Infection, Bacterial

### Stage Description

1.01	Carrier or suspected carrier state
1.02	Cutaneous or nasal diphtheria
2.01	of the pharynx or larynx or vagina or eye or bladder
2.02	with toxic neuritis
2.03	with hypoxia and progressive laryngeal or pharyngeal edema
2.04	with peritonitis
3.01	with myocarditis
3.02	with congestive heart failure
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Begg N, Balraj V. Diphtheria: are we ready for it? *Archives of Disease in Childhood*. 1995;73(6):568-72.

Chambers, HF. Infectious diseases: bacterial and rickettsial/tetanus. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1278-1279.

Hardy IR, Dittmann S, Sutter RW. Current situation and control strategies for resurgence of diphtheria in newly independent states of the former Soviet Union *Lancet*. 1996;347(9017):1739-44.

Holmes, RK. Diphtheria, other corynebacterial infections, and anthrax. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:892-899.

Long, SS. Diphtheria. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:775-779.

Ogle, JW. Infections: bacterial and spirochetal/diphtheria. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:1024-1025.

## Clinical Criteria with Description

DXCat Number: ENT04

Etiology:

DXCat Label: Foreign Body: Nasopharynx, Throat or Bronchus

Trauma

### Stage Description

1.01	Foreign body in larynx or trachea or bronchus
1.02	with hoarseness
1.03	with wheezing
1.04	with bronchitis
2.01	with atelectasis
2.02	with pulmonary abscess
2.03	with hypoxemia
2.04	with mediastinitis
2.05	with stridor
3.01	with respiratory failure
3.02	with sepsis
4.00	with death

### References:

Seidman, MD, Simpson GT, Khan MJ. Otolaryngology. In Noble: Textbook of Primary Care Medicine, 3rd ed., 2001 Mosby, Inc. p.1750-1753.

## Clinical Criteria with Description

DXCat Number: ENT05

Etiology:

DXCat Label: Hearing Loss due to Acoustic Trauma

Trauma

### Stage Description

1.01	Unilateral mild hearing loss secondary to acoustic trauma
1.02	Bilateral mild hearing loss secondary to acoustic trauma
1.03	Mild hearing loss secondary to acoustic trauma with tinnitus
1.04	Moderate hearing loss secondary to acoustic trauma
1.05	Bilateral moderate hearing loss secondary to acoustic trauma with tinnitus
1.06	Moderate hearing loss secondary to acoustic trauma with tinnitus
1.07	Moderately severe hearing loss secondary to acoustic trauma
1.08	Bilateral moderately severe hearing loss secondary to acoustic trauma
1.09	Moderately severe hearing loss secondary to acoustic trauma with tinnitus
1.10	Severe hearing loss secondary to acoustic trauma
1.11	Bilateral severe hearing loss secondary to acoustic trauma
1.12	Severe hearing loss secondary to acoustic trauma with tinnitus
1.13	Profound hearing loss secondary to acoustic trauma
1.14	Bilateral profound hearing loss secondary to acoustic trauma
1.15	Profound hearing loss secondary to acoustic trauma with tinnitus

## Clinical Criteria with Description

DXCat Number: ENT05

Etiology:

DXCat Label: Hearing Loss due to Acoustic Trauma

Trauma

### Stage Description

### References:

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Callanan V, O'Connor AF. Otolaryngology. Making the deaf hear and the dumb speak. *Lancet*. 1996;348 Suppl 2:sII19.

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1223:215-216.

Snow JB, Martin JB. Disorders of smell, taste, and hearing. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:173-179.

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## Clinical Criteria with Description

DXCat Number: ENT06

DXCat Label: Hearing Loss due to Aminoglycosides

Etiology:

Toxicologic

Stage	Description
1.01	with minimum hearing loss
1.02	with mild hearing loss
1.03	with tinnitus
2.01	with high frequency deafness
2.02	with high and midrange frequency deafness
2.03	with high and midrange frequency deafness and tinnitus

### References:

Minor LB. Gentamicin-induced bilateral vestibular hypofunction. *JAMA*. 1998;279(7):541-4, 1998.

Richard A, Jacobs RA, Guglielmo BJ. Anti-infective chemotherapeutic & antibiotic agents. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1421-1424.

Snow JB, Martin JB. Disorders of smell, taste, and hearing. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*, 14th ed. New York, NY: McGraw-Hill; 1998:173-179.

## Clinical Criteria with Description

DXCat Number: ENT07

DXCat Label: Hearing Loss due to Otosclerosis

Etiology:

Degenerative

Stage	Description
1.01	Otosclerosis
1.02	with unilateral mild hearing loss
1.03	with bilateral mild hearing loss
1.04	with mild hearing loss and tinnitus
1.05	with moderate hearing loss
1.06	with bilateral moderate hearing loss
1.07	with moderate hearing loss and tinnitus
1.08	with moderately severe hearing loss
1.09	with bilateral moderately severe hearing loss
1.10	with moderately severe hearing loss and tinnitus
1.11	with severe hearing loss
1.12	with bilateral severe hearing loss
1.13	with severe hearing loss and tinnitus
1.14	with profound hearing loss
1.15	with bilateral profound hearing loss
1.16	with profound hearing loss and tinnitus

## Clinical Criteria with Description

DXCat Number: ENT07

DXCat Label: Hearing Loss due to Otosclerosis

Etiology:

Degenerative

### Stage Description

### References:

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Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:222-223.

Sedwick JD, Loudon CL, Shelton C. Stapedectomy vs stapedotomy. Do you really need a laser? Archives of Otolaryngology -- Head & Neck Surgery. 1997;123(2):177-80.

Snow JB, Martin JB. Disorders of smell, taste, and hearing. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:173-179

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## Clinical Criteria with Description

DXCat Number: ENT08

DXCat Label: Labyrinthitis

Etiology:

Infection

### Stage Description

1.01	Labyrinthitis
1.02	Serous labyrinthitis
1.03	Purulent labyrinthitis
2.01	with petrositis
2.02	with otic hydrocephalus
2.03	with lateral sinus thrombosis
3.01	with meningitis
3.02	with brain abscess or encephalitis
3.03	with sepsis
3.04	with shock
4.00	with death

### References:

Arenberg IK, Lemke C, Shambaugh GE Jr. Viral theory for Meniere's disease and endolymphatic hydrops: overview and new therapeutic options for viral labyrinthitis. *Annals of the New York Academy of Sciences*. 1997;830:306-13.

Daroff RB, Martin JB. Faintness, syncope, dizziness, and vertigo. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*, 14th ed. New York, NY: McGraw-Hill; 1998:100-107.

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT, Appleton & Lange; 1998:225.

## Clinical Criteria with Description

DXCat Number: ENT09

DXCat Label: Meniere's Disease

Etiology:

Idiopathic

### Stage Description

1.01	Recurrent fluctuating vertiginous attacks with hearing loss and tinnitus
1.02	with increasing frequency
1.03	with bilateral involvement
2.01	with residual sensorineural hearing loss
2.02	with residual sensorineural hearing loss in both ears

### References:

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:224-227.

Martin JB, Beal MF. Disorders of the cranial nerves. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.

Saeed SR. Fortnightly review. Diagnosis and treatment of Meniere's disease. BMJ. 1998;316(7128):368-72.

## Clinical Criteria with Description

DXCat Number: ENT10

Etiology:

DXCat Label: Neoplasm, Benign: Acoustic Neuroma

Neoplasm

### Stage Description

1.01	Acoustic neuroma with hearing loss
1.02	with vertigo
1.03	with ataxia
2.01	with facial nerve involvement
2.02	with involvement of other cranial nerves
3.01	with mental status changes
3.02	with respiratory failure
3.03	with coma
3.04	with shock
4.00	with death

### References:

Friedman RA, Brackmann DE, van Loveren HR, Hitselberger WE. Management of the contracted mastoid in the translabyrinthine removal of acoustic neuroma. Archives of Otolaryngology -- Head & Neck Surgery. 1997;123(3):342-4.

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:227.

Snow JB, Martin JB. Disorders of smell, taste, and hearing. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:173-179.

## Clinical Criteria with Description

DXCat Number: ENT11

Etiology:

DXCat Label: Neoplasm, Benign: Larynx

Neoplasm

Stage	Description
1.01	with mild hoarseness
1.02	with severe hoarseness
2.01	with partial airway obstruction
3.01	with respiratory failure
4.00	with death

### References:

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

## Clinical Criteria with Description

DXCat Number: ENT12

DXCat Label: Neoplasm, Benign: Sinuses

Etiology:

Neoplasm

### Stage Description

1.01	Squamous papillomas
1.02	Retention cyst
1.03	Mucocele
1.04	Osteoma
1.05	Fibrous dysplasia
1.06	Inverting papilloma
2.01	Benign neoplasms of the sinuses with bony involvement
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Franchi A, Gallo O, Santucci M. Pathologic quiz case 1. Necrotizing sialometaplasia obscuring recurrent well-differentiated squamous cell carcinoma of the maxillary sinus. Archives of Otolaryngology -- Head & Neck Surgery. 1995;121(5):584-86.

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552

## Clinical Criteria with Description

DXCat Number: ENT13

Etiology:

DXCat Label: Neoplasm, Malignant: Larynx, Glottis

Neoplasm

### Stage Description

0.00	History of glottic cancer
1.01	tumor limited to vocal cords
2.01	with extension to the supraglottic or subglottic area with impaired vocal cord mobility
2.02	with fixation of the vocal cords
2.03	with extension beyond the larynx
2.04	with lymph node metastasis
3.01	with distant metastasis
3.02	with shock
4.00	with death

### References:

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

## Clinical Criteria with Description

DXCat Number: ENT14

Etiology:

DXCat Label: Neoplasm, Malignant: Larynx, Subglottic

Neoplasm

### Stage Description

0.00	History of subglottic carcinoma
1.01	Subglottic carcinoma limited to one subsite without vocal cord fixation
2.01	more than one subsite with impaired mobility
3.01	with fixation or one metastatic node or < 3cm in diameter
3.02	with extension beyond the larynx or multiple non-fixed metastatic node
3.03	with one cervical node > 3cm in diameter or one ipsilateral node < 6 cm in diameter or multiple ipsilateral nodes or contralateral nodes or any node > 6cm
3.04	with distant metastasis
3.05	with shock
4.00	with death

### References:

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

Zbaren P, Becker M, Lang H. Pretherapeutic staging of hypopharyngeal carcinoma. Clinical findings, computed tomography, and magnetic resonance imaging compared with histopathologic evaluation. Archives of Otolaryngology -- Head & Neck Surgery. 1997;123(9):908-13.

## Clinical Criteria with Description

DXCat Number: ENT15

Etiology:

DXCat Label: Neoplasm, Malignant: Larynx, Supraglottic

Neoplasm

### Stage Description

0.00	History of supraglottic or laryngeal carcinoma
1.01	Supraglottic carcinoma limited to one subsite without vocal cord fixation
2.01	More than one subsite with impaired mobility
3.01	with fixation or one metastatic node of < 3cm in diameter
3.02	with extension beyond the larynx or multiple non-fixed metastatic nodes or one fixed metastatic node
3.03	Multiple ipsilateral nodes or contralateral nodes or any node > 6cm with nodal involvement
3.04	with distant metastasis
3.05	with shock
4.00	with death

### References:

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

Zbaren P, Becker M, Lang H. Pretherapeutic staging of hypopharyngeal carcinoma. Clinical findings, computed tomography, and magnetic resonance imaging compared with histopathologic evaluation. Archives of Otolaryngology -- Head & Neck Surgery. 1997;123(9):908-13.

## Clinical Criteria with Description

DXCat Number: ENT16

Etiology:

DXCat Label: Neoplasm, Malignant: Nasopharyngeal

Neoplasm

### Stage Description

0.00	History of nasopharyngeal carcinoma
1.01	confined to one site
2.01	involving two sites
2.02	with extension into nasal cavity or oropharynx
2.03	with invasion of skull base or cranial nerve involvement
3.01	with distant metastasis
3.02	with shock
4.00	with death

### References:

Jackler RK, Kaplan MJ. Ear, nose, and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235, 244-245.

Niedobitek G, Young LS. Epstein-Barr virus persistence and virus-associated tumours. Lancet. 1994;343(8893):333-5.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

## Clinical Criteria with Description

DXCat Number: ENT17

Etiology:

DXCat Label: Neoplasm, Malignant: Sinuses

Neoplasm

### Stage Description

0.00	History of neoplasm of the sinuses
1.01	Malignant neoplasms of the sinuses without bony erosion
2.01	Malignant neoplasms of the sinuses with extension into hard palate and middle nasal meatus
2.02	Malignant neoplasms of the sinuses with extension to ethmoid sinuses or sphenoid sinuses or nasopharynx or pterygoid or cribriform plate or base of the skull
2.03	Malignant neoplasms of the sinuses with lymph node involvement
3.01	Malignant neoplasms of the sinuses with distant metastasis
4.00	Malignant neoplasms of the sinuses with death

### References:

Franchi A, Gallo O, Santucci M. Pathologic quiz case 1. Necrotizing sialometaplasia obscuring recurrent well-differentiated squamous cell carcinoma of the maxillary sinus. Archives of Otolaryngology -- Head & Neck Surgery. 1995;121(5):584-86

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:234-235.

Vokes EE. Head and neck cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:549-552.

## Clinical Criteria with Description

DXCat Number: ENT18

DXCat Label: Otitis Media

Etiology:

Infection

### Stage Description

1.01	Otitis media with serous effusion
1.02	Acute otitis media
1.03	with persistent effusion
1.04	Recurrent acute otitis media
2.01	with spontaneous perforation
2.02	Chronic suppurative otitis media
2.03	with cholesteatoma
2.04	with labyrinthitis
2.05	with mastoiditis
2.06	with facial nerve paralysis
2.07	with petrositis
3.01	with meningitis
3.02	with cavernous sinus thrombosis
3.03	with subdural or intracranial abscess
3.04	with sepsis
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: ENT18

DXCat Label: Otitis Media

Etiology:

Infection

### Stage Description

### References:

Arnold JE. Otitis media and its complications. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1814-1824.

Berman S, Chan K. Otitis media. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:403-412.

Durand M, Joseph M, Baker AS. Infections of the upper respiratory tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:179-185.

Froom J, Culpepper L, Jacobs M. Antimicrobials for acute otitis media? A review from the International Primary Care Network. BMJ. 1997;315(7100):98-102.

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, Appleton & Lange; 1998:218-220.

Swanson JA, Hoecker JL. Concise review for primary-care physicians. Mayo Clinic Proceedings. 1996;71(2):179-83.

## Clinical Criteria with Description

DXCat Number: ENT19

DXCat Label: Pharyngitis: Non-Streptococcal

Etiology:

Infection

### Stage Description

1.01	Pharyngitis or tonsillitis
2.01	with cervical suppurative adenitis
2.02	with peritonsillar or retropharyngeal abscess
2.03	with bronchopneumonia
2.04	with pharyngeal edema
3.01	with meningitis
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Bisno AL. Acute pharyngitis: etiology and diagnosis. *Pediatrics*. 1996;97(6 Pt 2):949-54.

Chambers HF. Infectious diseases: bacterial and chlamydial. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1267-1268.

Jackler RK, Kaplan MJ. Ear, nose and throat. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:238-240.

Little PS, Williamson I. Are antibiotics appropriate for sore throats? Costs outweigh the benefits. *BMJ*. 1994;309(6960):1010-1.

Wessels MR. Streptococcal and enterococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1197-1202.

## Clinical Criteria with Description

DXCat Number: ENT20

DXCat Label: Pharyngitis: Streptococcal

Etiology:

Infection, Bacterial

Stage	Description
1.01	Streptococcal pharyngitis or tonsillitis
2.01	with cervical suppurative adenitis
2.02	with peritonsillar or retropharyngeal abscess
2.03	with bronchopneumonia
2.04	with pharyngeal edema
2.05	Streptococcal pharyngitis and scarlet fever
3.01	Acute post-streptococcal glomerulonephritis
3.02	with acute renal failure
3.03	with meningitis
3.04	with acute rheumatic fever
3.05	with congestive heart failure
3.06	with sepsis
3.07	with respiratory failure
3.08	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: ENT20

DXCat Label: Pharyngitis: Streptococcal

Etiology:

Infection, Bacterial

### Stage Description

### References:

Anonymous. Prevention of invasive group A streptococcal disease among household contacts of case-patients: is prophylaxis warranted? The Working Group on Prevention of Invasive Group A Streptococcal Infections. *JAMA*. 1998;279(15):1206-10.

Bergstein JM. Acute poststreptococcal glomerulonephritis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*, 15th ed. Philadelphia, PA: WB Saunders; 1996:1487-1488.

Chambers, HF. Infectious diseases: bacterial and rickettsial/tetanus. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1267-1268.

Dajani AS. Adherence to physicians' instructions as a factor in managing streptococcal pharyngitis. *Pediatrics*. 1996;97(6 Pt 2):976-80.

Kaplan EL. Recent epidemiology of group A streptococcal infections in North America and abroad: an overview. *Pediatrics*. 1996;97(6 Pt 2):945-8.

Ogle JW. "Infections: Bacterial and Spirochetal/Group A Streptococcus." In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*, 13th ed. Stamford, CT: Appleton & Lange; 1997:1003-1007.

Todd J. Streptococcal infections/acute rheumatic fever. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:750-760.

Wessels MR. Streptococcal and enterococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:885-892.

## Clinical Criteria with Description

DXCat Number: ENT21

DXCat Label: Sinusitis

Etiology:

Immune; Infection

### Stage Description

1.01	Acute sinusitis with one sinus involved
1.02	Multiple sinus involvement
1.03	Chronic sinusitis
2.01	with preseptal cellulitis or osteitis
2.02	with osteomyelitis of surrounding bone
2.03	with extension into the orbit
2.04	with mucocele or pyocele
3.01	with meningitis
3.02	with intracranial abscess
3.03	with venous or cavernous sinus thrombosis or cranial nerve palsy
3.04	with sepsis
3.05	with shock
4.00	with death

### References:

deShazo RD, Chapin K, Swain RE. Fungal sinusitis. N Engl J Med. 1997;337(4):254-9.

Durand M, Joseph M, Baker AS. Infections of the upper respiratory tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:179-85.

Guarderas JC. Rhinitis and sinusitis: office management. Mayo Clinic Proceedings. 1996;71(9):882-8.

Low DE, Desrosiers M, McSherry J, et al. A practical guide for the diagnosis and treatment of acute sinusitis. CMAJ. 1997;156 Suppl 6:S1-14.

## Clinical Criteria with Description

DXCat Number: ENT80

Etiology:

DXCat Label: Neoplasm, Benign: Oral Cavity and Pharyngeal Structures

Stage	Description
1.01	Benign neoplasm oral cavity and pharyngeal structures

References:

## Clinical Criteria with Description

DXCat Number: ENT81

Etiology:

DXCat Label: Other Ear, Nose and Throat Disorders

Stage	Description
1.01	Other disorders of ear and mastoid, nose, and throat, chronic rhinitis, vocal cord polyps, congenital anomalies of ear, nose throat, pharynx, or sinuses

References:

## Clinical Criteria with Description

DXCat Number: ENT82

Etiology:

DXCat Label: Other Ear, Nose, and Throat Infections

Stage	Description
1.01	Laryngitis, tracheitis, epiglottitis, supraglottitis, upper respiratory infections without obstruction
2.01	with obstruction

### References:

## Clinical Criteria with Description

DXCat Number: EYE01

DXCat Label: Cataract

Etiology:

Degenerative; Trauma

### Stage Description

1.01	Lens opacities, nonsenile or traumatic cataract or congenital lens anomalies or after-cataract
1.02	Senile immature cataract
1.03	Senile mature cataract
2.01	Cataract with intumescent lens and secondary glaucoma
2.02	Hypermature lens with phacolytic uveitis

### References:

Datiles III MB, Magno BV. Cataract: clinical types. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippincott-Raven; 1998.

Datiles III MB. Clinical evaluation of cataracts. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippincott-Raven; 1998.

Duke-Elder S. Diseases of the lens. System of Ophthalmology. Vol IX. Henry Kimpton. 1969.

## Clinical Criteria with Description

DXCat Number: EYE02

DXCat Label: Conjunctivitis: Bacterial

Etiology:

Infection, Bacterial

Stage	Description
1.01	Bacterial conjunctivitis
1.02	Bacterial conjunctivitis with keratitis
2.01	Bacterial conjunctivitis with preseptal cellulitis

### References:

Abbott RL, Abrams MA. Bacterial corneal ulcers. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1986:(4)18.

## Clinical Criteria with Description

DXCat Number: EYE03

DXCat Label: Conjunctivitis: Chemical

Etiology:

Toxicologic

Stage	Description
1.01	Chemical keratoconjunctivitis
2.01	Chemical keratoconjunctivitis with diminished vision
2.02	Chemical keratoconjunctivitis with vision $\leq 20/200$

### References:

Ralph RA. Chemical burns of the eye. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1978:(4)28.

## Clinical Criteria with Description

DXCat Number: EYE04

DXCat Label: Conjunctivitis: Chlamydial Inclusion

Etiology:

Infection

Stage	Description
1.01	Adult inclusion conjunctivitis
1.02	Newborn inclusion conjunctivitis
2.01	Chronic inclusion conjunctivitis

### References:

Dawson CR, Schachter J. Ocular chlamydia infections. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippincott-Raving; 1998.

## Clinical Criteria with Description

DXCat Number: EYE05

DXCat Label: Contusion or Ruptured Globe

Etiology:

Trauma

### Stage Description

1.01	Contusion of the globe
2.01	with hyphema
2.02	with subluxation of the crystalline lens or retinal detachment or choroidal rupture or iridodialysis or angle recession
2.03	Ruptured globe or injury to optic nerve
2.04	with degenerated globe

### References:

Berman W, Jeffers J. Blunt trauma. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippincott-Raven; 1998, Vol 3.

Deutsch TA, Feller DB. Paton and Goldberg's Management of Ocular Injuries. 2nd ed. Philadelphia, PA: WB Saunders; 1985.

## Clinical Criteria with Description

DXCat Number: EYE06

DXCat Label: Dacryostenosis or Dacryocystitis

Etiology:

Congenital; Degenerative; Idiopathic

### Stage Description

1.01	Dacryostenosis
1.02	Acute dacryocystitis
1.03	Chronic or recurrent dacryocystitis
1.04	Canaliculitis
2.01	with cellulitis of the face
3.01	with cellulitis of the face and sepsis
3.02	with shock
4.00	with death

### References:

McCord Jr CD. The lacrimal drainage system. In: Duane TD, ed. Clinical Ophthalmology. Revised ed., Philadelphia, PA: JB Lippincott Co.; 1988:(4)13:6,14-15.

## Clinical Criteria with Description

DXCat Number: EYE07

DXCat Label: Detachment of the Retina

Etiology:

Degenerative; Trauma

### Stage Description

1.01	Posterior vitreous detachment (PVD)
1.02	Posterior vitreous detachment and breaks
1.03	Retinal detachment with subretinal fluid
2.01	Retinal detachment with proliferative retionpathy
2.02	Retinal detachment with phthisis bulbi
2.03	PVD and macular hole

### References:

Benson, W. Retinal detachment: diagnosis and management. Hagerstown, MD: Harper and Row; 1988.

The Retina Society Terminology Committee. The classification of retinal detachment with proliferative vitreoretinopathy. Ophthalmology. 1983;(90)121-125.

Vander, JF. In: Clinical Decisions in Medical Retinal Disease. Tasman, W, ed. St. Louis: Mosby, 1994.

## Clinical Criteria with Description

DXCat Number: EYE08

Etiology:

DXCat Label: Ectropion or Entropion (Abnormal Lower Lid Position)

Degenerative; Trauma

### Stage Description

1.01	Looseness of lower lid with tearing or foreign body sensation, or entropion or ectropion
2.01	with corneal vascularization, ulcer, ocular pemphigoid, or keratinization of palpebral conjunctiva

### References:

Dortzback RK, McGetrick JJ. Industrial entropion of the lower eyelid. *Adv. Ophthalm. Plastic Reconstructive Surgery.* 1983;2:257.

Doxanas MT. Eyelid abnormalities: ectropion, entropion. In: Tasman W, Jaeger EA, eds. *Duane's Ophthalmology.* Philadelphia, PA: Lippincott-Raving; 1998:Vol. 5(73).

## Clinical Criteria with Description

DXCat Number: EYE09

DXCat Label: Endophthalmitis

Etiology:

Infection

Stage	Description
2.01	Endophthalmitis
2.02	with vision loss
2.03	with marked vision loss
2.04	with retinal detachment or retinal infarction or optic nerve atrophy
2.05	with shrunken globe

### References:

Forster RK. Endophthalmitis. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1987:(4)24.

## Clinical Criteria with Description

DXCat Number: EYE10

DXCat Label: Foreign Body: Orbit

Etiology:

Trauma

### Stage Description

1.01	Corneal or conjunctival or lacrimal punctum foreign body
2.01	Foreign body in the anterior segment
2.02	Foreign body in the posterior segment
2.03	Orbital foreign body without ocular injury
2.04	Orbital foreign body with injury to the optic nerve

### References:

Deutsch TA, Feller DB. Paton and Goldberg's Management of Ocular Injuries. 2nd ed. Philadelphia, PA: WB Saunders; 1985.

Iwamoto MA, Iliff NT. Management of orbital trauma. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippincott-Raven; 1998, Vol 3.

## Clinical Criteria with Description

DXCat Number: EYE11

Etiology:

DXCat Label: Fracture: Orbit, Blow-Out

Trauma

### Stage Description

1.01	Blow-out fracture of the orbit with normal ocular alignment and normal motility and normal position
2.01	with enophthalmos
2.02	with diplopia in primary gaze or down gaze or heterotropia or gaze restriction
2.03	with traumatic optic neuropathy
2.04	with retrobulbar hemorrhage

### References:

Dortzbach RK, Elnor VM. Which orbital blowout fractures need surgery? Ophthalmology Plastic Reconstructive Surgery. 1987;(6)287.

Wilkins RB, Havins WE. Current treatment of blow-out fractures. Ophthalmology. 1982;(89)464-466.

## Clinical Criteria with Description

DXCat Number: EYE12

Etiology:

DXCat Label: Fungal Infection of the Eye

Infection

### Stage Description

1.01	Peripheral fungal keratitis
2.01	Central fungal keratitis
2.02	Fungal keratitis with glaucoma or corneal perforation
2.03	End-stage fungal keratitis
2.04	Fungal endophthalmitis
2.05	Fungal endophthalmitis with retinitis or vitreitis
2.06	Fungal endophthalmitis with vision loss

### References:

- Clarkson JG, Green WR. Endogenous fungal endophthalmitis. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1979:(3)11.
- Jones DB. Fungal infections. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1976:(4)21.

## Clinical Criteria with Description

DXCat Number: EYE13

DXCat Label: Glaucoma

Etiology:

Congenital; Genetic (or hereditary); Idiopathic

Stage	Description
1.01	Ocular hypertension
1.02	Early glaucoma
1.03	Narrow angle glaucoma
2.01	Moderate glaucoma
2.02	Severe glaucoma
2.03	Advanced glaucoma
2.04	Angle closure glaucoma

### References:

Hoskins HD, Hetherington J. Developmental glaucomas. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1979, Vol. 3.

Migdel C. Primary open angle glaucoma. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippencott-Raven; 1998.

Simons RB, Montenegro MH, Simons RJ, Migdel C. Primary angle closure glaucoma. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippencott-Raven; 1998.

## Clinical Criteria with Description

DXCat Number: EYE14

DXCat Label: Herpes Virus Ocular Infection

Etiology:

Infection, Viral

### Stage Description

1.01	Herpes keratitis or dendritic keratitis
1.02	with vision loss
2.01	with trophic ulcer
2.02	with stromal keratitis
2.03	with stromal scarring
2.04	Acute retinal necrosis syndrome
2.05	Acute retinal necrosis syndrome with vision loss
2.06	Acute retinal necrosis syndrome with retinal detachment

### References:

- Fisher JP, Lewis ML, Blumenkrantz M, et al. The acute retinal necrosis syndrome. part I: clinical manifestations. *Ophthalmology*. 1982;(89)1309-1316.
- O'Day DM, Jones BR. Herpes simplex keratitis. In: Duane TD, Jaeger EA, eds. *Clinical Ophthalmology*. Philadelphia, PA: Harper & Row; 1987:(4)19.

## Clinical Criteria with Description

DXCat Number: EYE15

DXCat Label: Hypovitaminosis A

Etiology:

Nutritional

Stage	Description
1.01	Conjunctival xerosis
1.02	Corneal xerosis
2.01	Corneal ulceration

### References:

Bloch RS. Gastrointestinal and nutritional diseases. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1982:(3)30.

## Clinical Criteria with Description

DXCat Number: EYE16

Etiology:

DXCat Label: Injury or Laceration: Eyelids, Periocular Area, Cornea, or Conjunctiva Trauma

### Stage Description

1.01	Laceration or superficial injury of the eyelids, periocular area, cornea or conjunctiva
1.02	Full thickness laceration of the eyelids
2.01	Laceration of the eyelids with involvement of lacrimal canaliculi
2.02	Laceration of the eyelids with loss of tissue

### References:

Wilkins RB, Havins WE. Current treatment of blow-out fractures. *Ophthalmology*. 1982;(89)464-466.

Wulc AE, Arterberry, JF. The pathogenesis of canalicular lacerations. *Ophthalmology*. 1991;98;1243.

## Clinical Criteria with Description

DXCat Number: EYE17

Etiology:

DXCat Label: Injury: Eyes, Nonionizing Radiation

Trauma

Stage	Description
1.01	Ultraviolet keratoconjunctivitis
1.02	Solar retinopathy

### References:

Deutsch TA, Feller DB. Paton and Goldberg's Management of Ocular Injuries. 2nd ed. Philadelphia, PA: WB Saunders; 1985.

## Clinical Criteria with Description

DXCat Number: EYE18

DXCat Label: Injury: Eyes, Radiation

Etiology:

Trauma

### Stage Description

1.01	Radiation keratitis
2.01	Radiation cataracts
2.02	Radiation retinopathy
2.03	Radiation optic neuropathy

### References:

Augsburger JJ. Radiation neuropathy. In: Clinical Decisions in Medical Retinal Disease. Tasman, W, ed. St. Louis, MO: Mosby; 1994.

Brown GC, Shields JA, Sanborn G, et al. Radiation optic neuropathy. Ophthalmology. 1982;(89)1489-1493.

## Clinical Criteria with Description

DXCat Number: EYE19

DXCat Label: Keratitis, Acanthamoeba

Etiology:

Infection

Stage	Description
1.01	Acanthamoeba keratitis
2.01	with reduced vision
2.02	with corneal thinning or corneal perforation or visual loss

### References:

Moore MD, McCulley JP. Acanthamoeba keratitis: a growing problem in soft and hard contact lens wearers. Ophthalmology. 1987;(94)1654-1661.

## Clinical Criteria with Description

DXCat Number: EYE20

DXCat Label: Keratitis, Adenovirus

Etiology:

Infection, Viral

Stage	Description
1.01	Adenovirus keratitis
1.02	with vision loss
2.01	with subepithelial infiltrates

### References:

Dawson CR. Follicular conjunctivitis. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1986:(4)7.

## Clinical Criteria with Description

DXCat Number: EYE21

DXCat Label: Keratitis, Bacterial

Etiology:

Infection, Bacterial

### Stage Description

1.01	Bacterial keratitis
2.01	Bacterial keratitis with intraocular inflammation
2.02	Bacterial keratitis with vision loss
2.03	Bacterial keratitis with endophthalmitis
2.04	Phthisis bulbi or degenerate globe

### References:

Krohel GB, Krauss HR, Winnick J. Orbital abscess, presentation, diagnosis, therapy, and equalae. *Ophthalmology*. 1982;(89)492-498.

Watters EC, Wallar PH, Hiles DA, Michaels RH. Acute orbital cellulitis. *Arch Ophthalmol*. 1976;(94)785-788.

## Clinical Criteria with Description

DXCat Number: EYE22

DXCat Label: Laceration: Cornea

Etiology:

Trauma

### Stage Description

1.01	Superficial laceration of cornea or conjunctiva
2.01	Full thickness corneal, and/or scleral laceration

### References:

Brackup AB, Carter KD, et al. Long term follow-up of severely injured eyes following globe rupture. *Ophthalmology Plastic and Reconstructive Surgery*. 1991;(7)194.  
Cullom Jr RD, Chang B. *The Wills Eye Manual*. Philadelphia, PA: J.B. Lippincott Co.; 1994.

## Clinical Criteria with Description

DXCat Number: EYE23

DXCat Label: Macular Degeneration

Etiology:

Degenerative

Stage	Description
1.01	Macular degeneration with drusen
1.02	with pigment epithelial atrophy
2.01	with serous detachment of retinal pigment epithelium
2.02	with fibrotic subretinal or disciform scar
2.03	with vitreous or suprachoroidal hemorrhage

### References:

Maguire JI, Annesly, Jr WH. Age related macular degeneration. In: Clinical Decisions in Medical Retinal Disease. Tasman, W, ed. St. Louis, MO: Mosby; 1994.

## Clinical Criteria with Description

DXCat Number: EYE24

Etiology:

DXCat Label: Neoplasm, Benign: Pterygium

Neoplasm

Stage	Description
1.01	Limbal mass
1.02	Inactive pterygium
1.03	Active pterygium
1.04	Advanced pterygium

### References:

Grayson M. Degenerations, dystrophies and edema of the cornea. In: Duane TD, ed. Clinical Ophthalmology. Hagerstown, MD: Harper & Row, 1979.

## Clinical Criteria with Description

DXCat Number: EYE25

Etiology:

DXCat Label: Neoplasm, Malignant: Ocular Melanoma

Neoplasm

### Stage Description

0.00	History of ocular melanoma
1.01	Choroidal nevus
2.01	Ocular melanoma confined to uvea
2.02	Choroidal melanoma penetrating Bruch's membrane
2.03	with periocular extension
3.01	with metastasis
3.02	with shock
4.00	with death

### References:

Shields JA. Tumors of the uveal tract. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1981:(4)67.

## Clinical Criteria with Description

DXCat Number: EYE26

Etiology:

DXCat Label: Neoplasm, Malignant: Retinoblastoma

Neoplasm

Stage	Description
0.00	History of retinoblastoma
1.01	Retinoblastoma
2.01	Retinoblastoma with reduced vision
2.02	Retinoblastoma with extension to the optic nerve
3.01	Retinoblastoma with metastasis
3.02	with shock
4.00	with death

### References:

Ellsworth RM. Retinoblastoma. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1979:(3)35.

## Clinical Criteria with Description

DXCat Number: EYE27

DXCat Label: Neoplasm: Eyelid

Etiology:

Neoplasm

### Stage Description

0.00	History of Basal Cell Carcinoma or Squamous Cell Carcinoma of lids
1.01	In-situ Basal Cell Carcinoma or Sebaceous Adenocarcinoma or Squamous Cell Carcinoma of lids
2.01	with involvement of lacrimal system
2.02	with involvement of orbit
2.03	with blepharoconjunctivitis
3.01	with brain invasion or sinus invasion
3.02	Malignant tumor with distant metastasis
4.00	Death

### References:

Crawford JB. Neoplastic and inflammatory tumors of the eyelids. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippincott-Raving; 1998:Vol 5(73).  
Kersten RC, Ewing-Chow D. Accuracy of clinical diagnosis of cutaneous eyelid tumors. Ophthalmology. 1997;104:479.

## Clinical Criteria with Description

DXCat Number: EYE28

DXCat Label: Ocular Onchocerciasis

Etiology:

Infection

### Stage Description

1.01	Ocular onchocerciasis
1.02	with punctate keratitis
2.01	with keratitis or uveitis or chorioretinitis
2.02	with retinal epithelial pigment atrophy

### References:

Taylor HR. Onchocerciasis. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1984:(5)62.

## Clinical Criteria with Description

DXCat Number: EYE29

DXCat Label: Orbital Infection

Etiology:

Infection

### Stage Description

1.01	Preseptal cellulitis or chalazion or belpharitis or hordeolum
1.02	Advanced preseptal cellulitis
2.01	Orbital cellulitis
2.02	Orbital cellulitis with subperiosteal abscess
2.03	Orbital cellulitis with orbital abscess
3.01	Orbital cellulitis with meningitis
3.02	Orbital cellulitis with sepsis
3.03	Orbital cellulitis with coma
3.04	Orbital cellulitis with shock
4.00	Orbital cellulitis with death

### References:

Krohel GB, Krauss HR, Winnick J. Orbital abscess, presentation, diagnosis, therapy, and equalae. *Ophthalmology*. 1982;(89)492-498.

Watters EC, Wallar PH, Hiles DA, Michaels RH. Acute orbital cellulitis. *Arch Ophthalmol*. 1976;(94)785-788.

## Clinical Criteria with Description

DXCat Number: EYE30

DXCat Label: Orbital Mucormycosis

Etiology:

Infection

### Stage Description

1.01	Orbital mucormycosis
2.01	with loss of vision
2.02	with apex syndrome
3.01	with cerebral mucormycosis
3.02	with coma
3.03	with shock
4.00	with death

### References:

Fisher JP, Lewis ML, Blumenkrantz M, et al. The acute retinal necrosis syndrome. part I: clinical manifestations. *Ophthalmology*. 1982;(89)1309-1316.

O'Day DM, Jones BR. Herpes simplex keratitis. In: Duane TD, Jaeger EA, eds. *Clinical Ophthalmology*. Philadelphia, PA: Harper & Row; 1987:(4)19.

## Clinical Criteria with Description

DXCat Number: EYE31

DXCat Label: Prematurity: Retinopathy

Etiology:

Congenital

### Stage Description

1.01	Demarcation line separating vascular from avascular retina
1.02	Elevated retinal ridge
2.01	Retinal ridge with extraretinal fibrovascular proliferation
2.02	Subtotal traction detachment of retinopathy of prematurity
2.03	Total traction detachment of retinopathy of prematurity
2.04	Retinopathy of prematurity with total blindness or cataract or glaucoma

### References:

Committee for the Classification of Retinopathy of Prematurity. An international classification of retinopathy of prematurity, Arch Ophthalmology. 1984; 102:1130-1134.

International Committee for the Classification of the Late Stages of Retinopathy of Prematurity, II. The classification of retinal detachment. Arch Ophthalmology. 1987;105:906-912.

## Clinical Criteria with Description

DXCat Number: EYE32

DXCat Label: Ptosis of Upper Lid

Etiology:

Congenital; Degenerative; Trauma

### Stage Description

1.01	Ptosis of upper lid, acquired
1.02	Ptosis of upper lid, congenital
1.03	Ptosis of upper lid, acquired with systemic disease
2.01	Ptosis of upper lid with visual field defect
2.02	Ptosis of upper lid, congenital with amblyopia or abnormal head position

### References:

Cliff WJ, Pacheco EM. Ptosis sSurgery. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippencott-Raven; 1998.

McCulloch DL, Wright KW. Unilateral congenital ptosis: compensatory head posturing and amblyopia. Ophthalm Plast and Reconstr Surg. 1996;9:196.

## Clinical Criteria with Description

DXCat Number: EYE33

Etiology:

DXCat Label: Retrobulbar Orbital Hemorrhage

Trauma

Stage	Description
1.01	Orbital hemorrhage
2.01	with proptosis
2.02	Orbital hemorrhage with optic nerve compression
2.03	Blindness

### References:

Deutsch TA, Feller DB. Paton and Goldberg's Management of Ocular Injuries. 2nd ed. Philadelphia, PA: WB Saunders; 1985.

## Clinical Criteria with Description

DXCat Number: EYE34

DXCat Label: Strabismus

Etiology:

Congenital

Stage	Description
1.01	Phoria or latent strabismus
1.02	Periodic strabismus
1.03	Strabismus
2.01	Amblyopia

### References:

Parks MM. Eye movements and positions. In: Tasman W, Jaeger EA, eds. Duane's Ophthalmology. Philadelphia, PA: Lippencott-Raven; 1998.

## Clinical Criteria with Description

DXCat Number: EYE35

DXCat Label: Trachoma

Etiology:

Infection

### Stage Description

1.01	Trachoma with immature tarsal conjunctiva follicles
1.02	with mature tarsal conjunctiva follicles
1.03	with papillary hypertrophy
2.01	with tarsal conjunctival scarring
2.02	with reduced vision or corneal scars or trichiasis or entropion

### References:

Dawson CR. Follicular conjunctivitis. In: Duane TD, Jaeger EA, eds. Clinical Ophthalmology. Philadelphia, PA: Harper & Row; 1979:(4)9.

## Clinical Criteria with Description

DXCat Number: EYE80

Etiology:

DXCat Label: Neoplasm, Benign: Eye

Neoplasm

Stage	Description
1.01	Benign neoplasm of eye structures

### References:

## Clinical Criteria with Description

DXCat Number: EYE81

Etiology:

DXCat Label: Neoplasm, Malignant: Other Eye and Periocular

Neoplasm

### Stage Description

1.01	Primary malignant neoplasm of conjunctiva, cornea, lacrimal duct and other eye areas
2.01	with lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: EYE82

Etiology:

DXCat Label: Other Eye Disorders

Stage	Description
1.01	Minor disorder of globe, cysts, foreign body in eye, other visual problems
2.01	Degenerative globe, hypotony, retinal cysts, retinopathy, blindness

References:

## Clinical Criteria with Description

DXCat Number: GEN01

DXCat Label: Down's Syndrome

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Mosaic Down's syndrome
1.02	Down's syndrome
2.01	with mental retardation
2.02	with atlantoaxial instability
2.03	with duodenal atresia
2.04	with cardiac malformation
2.05	with leukemia
3.01	with endocarditis
3.02	with congestive heart failure
3.03	with sepsis
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GEN01

DXCat Label: Down's Syndrome

Etiology:

Genetic (or hereditary)

### Stage Description

### References:

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Cuckle H. Rational Down syndrome screening policy. *American Journal of Public Health*. 1998;88(4):558-9.

German J. Cytogenetic aspects of human disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:395-403.

Pyeritz RE. Medical genetics. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1496-1518.

State MW, King BH, Dykens E. Mental retardation: a review of the past 10 years. Part II. *Journal of the American Academy of Child & Adolescent Psychiatry*. 36(12):1664-71, 1997 Dec.

Thompson GH, Scoles PV. Atlantoaxial instability. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*, 15th ed. Philadelphia, PA: WB Saunders; 1996:1950-1951.

Tolmie JL. Down syndrome and other autosomal trisomies. In: Rimoin DL, Conner JM and Pyeritz, eds. *Principles and Practice of Medical Genetics*. 3rd Ed. New York, NY: Churchill Livingstone; 1997:925-971.

## Clinical Criteria with Description

DXCat Number: GEN02

DXCat Label: Klinefelter's Syndrome

Etiology:

Genetic (or hereditary)

### Stage Description

1.01	Mosaic Klinefelter's syndrome
1.02	Klinefelter's syndrome
1.03	Klinefelter's syndrome with three X chromosomes
1.04	Klinefelter's syndrome with four X chromosomes
1.05	Klinefelter's syndrome with five X chromosomes
2.01	with obesity
2.02	with hypothyroidism or hyperthyroidism
2.03	with diabetes mellitus
2.04	with breast carcinoma

### References:

New MI. Steroid 21-hydroxylase deficiency (congenital adrenal hyperplasia). *American Journal of Medicine*. 1995;98(1A):2S-8S.

Orth DN, Kovacs WJ, DeBold CR. The adrenal cortex. In: Wilson JD, Foster DW, eds. *Williams Textbook of Endocrinology*. 8th ed. Philadelphia, PA: WB Saunders; 1992:489-620.

White PC. Inherited forms of mineralocorticoid hypertension. *Hypertension*. 1996;28(6):927-936.

Wilson JD, Griffin JE. Disorders of sexual differentiation. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2119-2131.

## Clinical Criteria with Description

DXCat Number: GEN03

DXCat Label: Turner's or Noonan's Syndrome

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Mosaic Turner's syndrome
1.02	Noonan's syndrome
1.03	Turner's syndrome
1.04	with mental retardation
2.01	with gastrointestinal telangiectasias
2.02	with gonadoblastoma
2.03	with renal tumor
2.04	with acute gastrointestinal bleeding
2.05	with cardiovascular malformations
3.01	with renal failure
3.02	with congestive heart failure
3.03	with respiratory failure
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GEN03

DXCat Label: Turner's or Noonan's Syndrome

Etiology:

Genetic (or hereditary)

### Stage Description

### References:

Carr BR. Disorders of the ovaries and female reproductive tract. In: Wilson JD, Foster DW, eds. Williams Textbook of Endocrinology. 8th ed. Philadelphia, PA: WB Saunders; 1992:733-798

Chu CE, Connor JM. Molecular biology of Turner's syndrome. Archives of Disease in Childhood. 1995;72(4):285-286.

Fitzgerald PA. Turner's syndrome. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1090-1091.

Noonan JA. Noonan syndrome. An update and review for the primary pediatrician. Clinical Pediatrics. 1994;33(9):548-55.

Saenger P. Turner's syndrome. N Engl J Med. 1996;335(23):1749-1754.

Wilson JD, Griffin JE. Disorders of sexual differentiation. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2119-2131.

## Clinical Criteria with Description

DXCat Number: GEN80

DXCat Label: Other Chromosomal Anomalies

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Anomalies of spleen, endocrine system, or hamartoses, Patau's, Edward's, Marfan's Fragile X, or Prader-Willi syndrome, situs inversus, conjoined twins, and other chromosomal anomalies

### References:

## Clinical Criteria with Description

DXCat Number: GIS01

DXCat Label: Alpha 1-Antitrypsin Deficiency

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Heterozygous alpha-1-antitrypsin deficiency
1.02	Homozygous alpha-1-antitrypsin deficiency
1.03	Alpha-1-antitrypsin deficiency with panniculitis
2.01	with hepatitis
2.02	with COPD
2.03	with cirrhosis
2.04	with coagulation defects
3.01	with renal failure
3.02	with respiratory failure
3.03	with coma
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS01

DXCat Label: Alpha 1-Antitrypsin Deficiency

Etiology:

Genetic (or hereditary)

### Stage Description

### References:

- Beaudet AL. Genetics and disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:365-395.
- Honig EG, Ingram Jr RH. Chronic bronchitis, emphysema, and airway obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1451-1460.
- Isselbacher KJ, Podolsky DK. Infiltrative and metabolic diseases affecting the liver. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1717-1721.
- Mahadeva R, Lomas DA. Genetics and respiratory disease. 2. Alpha 1-antitrypsin deficiency, cirrhosis and emphysema. *Thorax*. 1998;53(6):501-5.
- Orenstein DM. Alpha-1-antitrypsin deficiency and emphysema. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*, 15th ed. Philadelphia, PA: WB Saunders; 1996:1228-1229.
- Sokol RJ, Narkewicz. Alpha-1-antitrypsin deficiency liver disease. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:577-587.
- Stoller JK. Clinical features and natural history of severe alpha 1-antitrypsin deficiency. Roger S. Mitchell Lecture. *Chest*. 1997;111(6 Suppl):123S-128S.

## Clinical Criteria with Description

DXCat Number: GIS02

DXCat Label: Amebiasis

Etiology:

Infection

### Stage Description

1.01	Asymptomatic Entamoeba histolytica carrier
2.01	Entamoeba histolytica colitis
2.02	Entamoeba histolytica dermatitis
2.03	Entamoeba histolytica hepatic abscess
2.04	Entamoeba histolytica lung abscess
2.05	with bowel obstruction
2.06	with perforation or peritonitis
3.01	with meningitis or brain abscess
3.02	with sepsis
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS02

DXCat Label: Amebiasis

Etiology:

Infection

### Stage Description

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. *JAMA*. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Craft JC. Amebiasis. In: Hoeprich PD, Jordan MC, Ronald AR, eds. *Amebiasis Infectious Diseases*. 5th ed. Philadelphia, PA: J.B. Lippincott Company; 1994:763-768.
- Goldsmith RS. Amebiasis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1327-1334.
- Guerrant RL, Weikel CW, Raydin JL. Intestinal protozoa, Giardia Lambia, Entamoeba Histolytica, and Cryptosporidium. In: Holmes, KK et al, eds. *Sexually Transmitted Diseases*. 2nd ed. McGraw Hill Inf. Serv, 1990:493-514.
- Gutierrez Y. The intestinal amebae. In: *Diagnostic Pathology of Parasitic Infections with Clinical Correlations*. Philadelphia, PA: Lea & Febiger; 1990:55-79.
- MacLean JD, Ward BJ. First the bad news. *CMAJ*. 1997;157(12):1675-1676.
- Purdy JE, Petri WA. Entamoeba histolytica (amebiasis). In: Long SS, Pickering LK, Prober CG, eds. *Principles and Practice of Pediatric Infectious Diseases*. New York, NY: Churchill Livingstone Inc.; 1997:1380-1386.
- Reed SL. Amebiasis and infection with free-living amebas. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1176-1180.
- Reisberg B. Common intestinal parasitic infections. In: Shulman, Phair, Peterson, Warren, eds. *The Biologic and Clinical Basis of Infectious Diseases*. 5th ed. Philadelphia, PA: W.B. Saunders; 1997:263-280.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. *JAMA*. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS03

DXCat Label: Anal Fissure

Etiology:

Trauma

### Stage Description

1.01	Chronic anal fissure
1.02	Acute anal fissure

### References:

Dozois R. Disorders of the anal canal. In: Sabiston Jr DC. Textbook of Surgery. 1st ed. Philadelphia, PA: WB Saunders; 1997:1032-1044.

Isselbacher KJ, Epstein A. "Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.

Kodner I, Fray R, Fleshman J, Birnbaum D. Colon, rectum and anus. In: Shwartz, Shires, Spencer, eds. Principles of Surgery. 6th ed. New York, NY: McGraw Hill; 1994:(2)1225-1226.

Lund JN, Scholefield JH. Aetiology and treatment of anal fissure. British Journal of Surgery. 1996;83(10):1335-1344.

McQuaid KR. Other anal conditions. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:626-627.

## Clinical Criteria with Description

DXCat Number: GIS04

DXCat Label: Anorectal Suppuration

Etiology:

Infection

### Stage Description

1.01	Proctitis
2.01	Fistula in ano
2.02	Anorectal abscess
2.03	Ischioanal abscess or suprapubic abscess
2.04	Pelvic abscess
3.01	Anorectal suppuration with sepsis
3.02	Anorectal suppuration with shock
4.00	Anorectal suppuration with death

### References:

- Barnett LJ, Raper ES. Anorectal diseases. In: Yamada T, Alpers HD, Owyang C, Powell WD, Silverstein EF, eds. Textbook of Gastroenterology. 2nd ed. JP Lippincott & Company. 1995:2027-2050.
- Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.
- Lund JN, Scholefield JH. Aetiology and treatment of anal fissure. British Journal of Surgery. 1996;83(10):1335-1344.
- Mackeigan MJ, Cataldo AP. Disorders of the anorectum. In: DiManino JA, Benjamin BS, Al-Kawas HF, Baillie J, Conn M, Hawesh R., Eds. Gastrointestinal Disease: An Endoscopic Approach. Blackwell-Science, Inc. 1997:707-729.
- McCourtney JS, Finlay IG. Setons in the surgical management of fistula in ano. British Journal of Surgery. 1995;82(4):448-452.
- McQuaid KR. Anorectal Diseases. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:623-627.
- Schuster MM, Ratych ER. Anorectal disease. In: Haubrich, Schaffner, Berk, Bockus, eds. Gastroenterology. 5th ed. Philadelphia, PA: WB Saunders; 1995:1173-1789.

## Clinical Criteria with Description

DXCat Number: GIS05

DXCat Label: Appendicitis

Etiology:

Idiopathic

### Stage Description

1.01	Appendicitis
2.01	with localized peritonitis or abscess
2.02	and intestinal obstruction
2.03	with perforation and generalized peritonitis
2.04	with pylephlebitis or liver abscess
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

- Forrest APM, Carter DC, Macleod LB. The appendix. In: Principles and Practice of Surgery. 3rd ed. Churchill-Livingstone. 1995:436-442.
- Grosfeld JL. Pediatric surgery, acute appendicitis. In: Sabiston, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1997:1259-1260.
- McCall JL, Sharples K, Jadallah F. Systematic review of randomized controlled trials comparing laparoscopic with open appendectomy. British Journal of Surgery. 1997 84(8):1045-1050.
- McQuaid KR. Appendicitis. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:600-601.
- Sabiston DC. Appendicitis. In: Sabiston, ed. Sabiston Textbook of Surgery, 15th ed. Philadelphia, PA: WB Saunders; 1997:964-970.
- Sawin RS. Appendix and meckel diverticulum. In: Oldham KT, Colombani PM, Foglia RP, eds. Surgery of Infants and Children. Philadelphia, PA: JB Lippincott-Raven; 1997:1215-1228.
- Silen W. Acute appendicitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1658-1660.
- Tate JJ. Laparoscopic appendectomy. British Journal of Surgery. 1996;83(9):1169-1170.

## Clinical Criteria with Description

DXCat Number: GIS06

DXCat Label: Celiac Disease

Etiology:

Metabolic

### Stage Description

1.01	Celiac disease or gluten enteropathy
1.02	with malnutrition
2.01	with anemia
2.02	with non-Hodgkin's lymphoma or esophageal Ca
2.03	with intestinal obstruction
3.01	with CHF
3.02	with shock
4.00	with death

### References:

- Greenberger NJ, Isselbacher KJ.. Disorders of absorption acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1616-1633.
- Holmes GKT. Ulcerative Jejunoileitis. In: Allan RN, Rhodes JM, Hanaver SB, eds. Inflammatory Bowel Disease, 3rd ed. Churchill-Livingstone, 1997:431-435.
- Houlston RS. Ford D. Genetics of coeliac disease. QJM. 1996;89(10):737-743.
- Maki M. Collin P. Coeliac disease. Lancet. 1997;349(9067):1755-1759.
- McQuaid KR. Malabsorption. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:588-593.
- Mearin ML, Muldar CJJ. Celiac disease (gluten-sensitive enteropathy). In: Hawbrich, Schaffner, Berk, Bockus, eds. Gastroenterology, 5th ed. Philadelphia, PA: WB Saunders; 1995:1027-1048.
- Savidge TC. Walker-Smith JA. Phillips AD. Savidge TC. Intestinal proliferation in coeliac disease: looking into the crypt. Gut. 1995;36(3):321-323.

## Clinical Criteria with Description

DXCat Number: GIS07

DXCat Label: Cholera

Etiology:

Infection, Bacterial

### Stage Description

1.01	Cholera carrier state
1.02	with mild dehydration
2.01	with moderate dehydration
3.01	with severe dehydration
3.02	with renal failure
3.03	with shock
4.00	with death

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. *JAMA*. 1997;277(17):1344-1345.
- Benenson A. Cholera. In: Evans A, Brachman P, eds. *Bacterial Infections of Humans*. 2nd ed. New York, NY: Plenum Media; 1991:207-225.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Goldsmith RS. Cholera. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1287-1288.
- Heyning W, Seal J. The nature of the disease. In: Heyning W, Seal J, eds. *Cholera the American Scientific Experience*. Boulder, CO: Westview Press; 1983.
- Keusch G, Bennish M. Cholera. In: Feigin, Cherry, eds. *Textbook of Pediatric Infectious Diseases*. 4th ed. Philadelphia, PA: WB Saunders; 1998:1364-1384.
- Keusch GT, Deresiewicz RL. "Cholera and other vibrioses. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:962-969.
- Sack D. Cholera and related illness caused by vibrio species and aeromonas. In: Gorbach, Bartlett, Blacklow, eds. *Infectious Diseases*. 2nd ed. Philadelphia, PA: WB Saunders; 1998:738-748.
- Sanchez JL, Taylor DN. Cholera. *Lancet*. 1997;349(9068):1825-1830.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. *JAMA*. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS08

DXCat Label: Clostridium difficile Colitis

Etiology:

Infection, Bacterial

### Stage Description

1.01	Asymptomatic Clostridium difficile
2.01	Clostridium difficile colitis with bleeding
2.02	with bowel obstruction
2.03	with perforation or peritonitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Fekety R, et al. Diagnosis and treatment of Clostridium difficile colitis. JAMA. 1993;269-271.

Shim J, Johnson S, et al. Primary symptomless colonization by Clostridium difficile and decreased risk of subsequent diarrhea. Lancet. 1998;351:633-636.

## Clinical Criteria with Description

DXCat Number: GIS09

DXCat Label: Crohn's Disease

Etiology:

Idiopathic

### Stage Description

1.01	Crohn's disease
2.01	with arthritis or involvement of the eyes or involvement of the mouth or erythema nodosum or pyoderma gangrenosum or anemia or hypoproteinemia or growth retardation or hypertrophic osteoarthropathy
2.02	with obstructive uropathy or biliary tract stones
2.03	with enteroenteric or enterovesical or enterovaginal or enterocutaneous fistula
2.04	with acute gastrointestinal bleed
2.05	with intestinal obstruction
2.06	with intra-abdominal abscess
2.07	with perforation of bowel or peritonitis
2.08	with renal or hepatic amyloidosis
2.09	with sclerosing cholangitis or cirrhosis of the liver
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS09

DXCat Label: Crohn's Disease

Etiology:

Idiopathic

### Stage Description

### References:

Borley NR, Mortensen NJ, Jewell DP. Preventing postoperative recurrence of crohn's disease. *British Journal of Surgery*. 1997;84(11):1493-1502.

Gilmour MH. Crohn's disease. In: Whitehead R, ed. *Gastrointestinal and Oesophageal Pathology*. 2nd ed. Churchill-Livingstone. 1995:547-558.

Glickman RM. Inflammatory bowel disease (ulcerative colitis and crohn's disease). In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1633-1646.

Hanauer SB. Inflammatory bowel. *N Engl J Med*. 1996;334(13):841-848.

Lowes RJ. Crohn's disease of large intestine. In: Allan NR, Rhodes MJ, Hanauer BS, Keighley BRM, Alexander-Williams J, Fazio WV, eds. *Inflammatory Bowel Diseases*. 3rd ed. Churchill-Livingstone. 1997:601-619.

McQuaid KR. Inflammatory bowel disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:606-613.

Meyers S. Complications and their management (crohn's disease). In: Haubrich, Schaffner, Berk, Bockus, eds. *Gastroenterology*. 5th ed. Philadelphia, PA: WB Saunders; 1995:1464-1474.

Rhodes JM. Unifying hypothesis for inflammatory bowel disease and associated colon cancer: sticking the pieces together with sugar. *Lancet*. 1996;347(8993):40-44.

Rubin HP, Present HD. Differential diagnosis of chronic ulcerative colitis and crohn's disease of the colon. In: Kirsner BJ, Shorter GR, eds. *Inflammatory Bowel Disease*. 4th ed. Williams-Wilkins. 1995:355-379.

Stenson FW. Inflammatory bowel disease. In: Yamada T, Alpers HD, Owyang C, Powell WD, Silverstein EF, eds. *Textbook of Gastroenterology*. 2nd ed. JP Lippincott. 1995:1748-1805.

## Clinical Criteria with Description

DXCat Number: GIS10

DXCat Label: Diverticular Disease

Etiology:

Degenerative

Stage	Description
1.01	Diverticulosis
1.02	Diverticulitis
2.01	with lower gastrointestinal bleeding
2.02	with fistula
2.03	with obstruction
2.04	with intra-abdominal abscess
2.05	with generalized peritonitis or gross perforation
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Elliott TB, Yego S, Irvin TT. Five-year audit of the acute complications of diverticular disease. *British Journal of Surgery*. 1997;84(4):535-539.

Imbembo AL. Diverticular disease of the colon. In: Sabiston, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1997:982-993.

Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.

McQuaid KR. Diverticular disease of the colon. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:614-617.

Tancer ML, Veridiano NP. Genital fistulas secondary to diverticular disease of the colon: a review. *Obstetrical & Gynecological Survey*. 1996;51(1):67-73.

Willemsen P, Tielliu I, Appeltans B. Surgical management of complicated colonic diverticulitis. *British Journal of Surgery*. 1997;84(8):1177-1178.

## Clinical Criteria with Description

DXCat Number: GIS11

DXCat Label: Food Poisoning: C. perfringens

Etiology:

Infection, Bacterial

### Stage Description

1.01	Food poisoning due to C. perfringens
1.02	with mild dehydration
2.01	with moderate dehydration
3.01	with severe dehydration
3.02	with enteritis necroticans or bloody diarrhea
3.03	with renal failure
3.04	with central nervous system involvement
3.05	with shock
4.00	with death

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Kasper DL, D.F. Zaleznik DF. Gas gangrene, antibiotic-associated colitis, and other clostridial infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:906-910.
- McQuaid KR. Alimentary tract: diarrhea. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:542-547.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. JAMA. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS12

Etiology:

DXCat Label: Food Poisoning: Other Organisms

### Stage Description

1.01	Food poisoning
1.02	with mild dehydration
2.01	with moderate dehydration
2.02	with bloody diarrhea
3.01	with severe dehydration
3.02	with renal failure
3.03	with central nervous system involvement
3.04	with shock
4.00	with death

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- McQuaid KR. Alimentary tract: diarrhea. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:542-547.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. JAMA. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS13

DXCat Label: Food Poisoning: S. aureus

Etiology:

Infection, Bacterial

### Stage Description

1.01	Food poisoning due to Staphylococcus aureus enterotoxin
1.02	with mild dehydration
2.01	with moderate dehydration
3.01	with severe dehydration
3.02	with renal failure
3.03	with disorientation or coma
3.04	with shock
4.00	with death

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Deresiewicz RL, Parsonnet J. Staphylococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:875-885.
- Gould D, Chamberlaine A. Staphylococcus aureus: a review of the literature. Journal of Clinical Nursing. 1995;4(1):5-12.
- McQuaid KR. Alimentary tract: diarrhea. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:542-547.
- Michel M, Gutmann L. Methicillin-resistant staphylococcus aureus and vancomycin-resistant enterococci: therapeutic realities and possibilities. Lancet. 1997;349(9069):1901-1906.
- Mulligan ME, Murray-Leisure KA, Ribner BS, Standiford HC, John JF, Korvick JA, Kauffman CA, Yu VL. Methicillin-resistant Staphylococcus aureus: a consensus review of the microbiology, pathogenesis, and epidemiology with implications for prevention and management. American Journal of Medicine. 1993;94(3):313-328.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. JAMA. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS14

Etiology:

DXCat Label: Foreign Body: Digestive Tract

Trauma

Stage	Description
1.01	Foreign body in stomach or intestine or anus or rectum and digestive system unspecified

### References:

## Clinical Criteria with Description

DXCat Number: GIS15

Etiology:

DXCat Label: Foreign Body: Esophagus

Trauma

### Stage Description

1.01	Foreign body in esophagus
1.02	with mild dysphagia
2.01	with severe dysphagia
2.02	with esophagitis
2.03	with esophageal perforation
2.04	with mediastinitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

## Clinical Criteria with Description

DXCat Number: GIS16

DXCat Label: Functional Digestive Disorders

Etiology:

Idiopathic

### Stage Description

1.01	Constipation or impaction of the large intestine or functional diarrhea or pylorospasm or achalasia or diffuse esophageal spasm or dysphagia
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### References:

Goyal RK. Diseases of the esophagus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.

Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.

McQuaid KR. Gastroesophageal reflux disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:559-563.

McQuaid KR. Irritable bowel syndrome. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:602-605.

## Clinical Criteria with Description

DXCat Number: GIS17

DXCat Label: Gastritis

Etiology:

Idiopathic; Infection; Toxicologic

### Stage Description

1.01	Chronic erosive gastritis
1.02	Nonerosive gastritis
1.03	Gastric hyperplasia
2.01	Acute erosive gastritis
2.02	with hemorrhage
3.01	with hypotension
3.02	with shock
4.00	with death

### References:

- Barthel JS. Gastritis and duodenitis. In: Achkar, Farmer, Fleshler, eds. *Clinical Gastroenterology*. 2nd ed. Lea & Febiger, 1992:224-233.
- Friedman LS, Peterson WL. Peptic ulcer and related disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1596-1616.
- Goodgame RW, Genta RM, Go M, Graham DY. Infectious gastritis. In: Surawecz, Owen, eds. *Gastrointestinal and Hepatic Infections*. Philadelphia, PA: WB Saunders; 1995:47-72.
- Graham DY. Helicobacter pylori infection in the pathogenesis of duodenal ulcer and gastric cancer: A model. *Gastroenterology*. 1997;113:1983-1991.
- Heatley RV, Wyatt JI. Gastritis and duodenitis. In: Haubrich, Scheaffner, Berk, Bockus, eds. *Gastroenterology*. 5th ed. Philadelphia, PA: WB Saunders; 1995:635-655.
- McQuaid KR. Gastritis and gastropathy. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:573-577.
- Ofman JJ, Etchason J, Fullerton S, Kahn KL, Soll AH. Management strategies for Helicobacter pylori-seropositive patients with dyspepsia: clinical and economic consequences. *Annals of Internal Medicine*. 1997; 126(4):280-291.
- Pappas TN. The stomach and duodenum. In: *Textbook of Surgery*, 15th ed. Philadelphia, PA: WB Saunders; 1997:847-868.
- Yardley JH, Hendrix TR. "Gastritis, duodenitis and associated ulcerative lesions. In: Yamada, Alpers, Owyang, Powell, Silverstein, eds. *Textbook of Gastroenterology*, 2nd ed. Lippincott; 1995:1456-1493.

## Clinical Criteria with Description

DXCat Number: GIS18

DXCat Label: Hemorrhoids

Etiology:

Idiopathic

### Stage Description

1.01	Internal hemorrhoids
1.02	Spontaneously reducible external hemorrhoids
1.03	Prolapsed external hemorrhoids
1.04	Non-reducible external hemorrhoids
2.01	Thrombosed hemorrhoids
2.02	Ulcerated hemorrhoids
2.03	Hemorrhoids with hemorrhage or anemia

### References:

- Barnett LJ, Raper ES. Anorectal diseases. In: Yamada T, Alpers HD, Owyang C, Powell WD, Silverstein EF, eds. Textbook of Gastroenterology. 2nd ed. JP Lippincott & Company. 1995:2027-2050.
- Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.
- Mackeigan MJ, Cataldo AP. Disorders of the anorectum. In: DiManino JA, Benjamin BS, Al-Kawas HF, Baillie J, Conn M, Hawesh R., Eds. Gastrointestinal Disease: An Endoscopic Approach. Blackwell-Science, Inc. 1997:707-729.
- McQuaid KR. Hemorrhoids. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:623-624.
- Pfenninger JL. Modern treatments for internal haemorrhoids. BMJ. 1997;314(7089):1211-1212.
- Schuster MM, Ratych ER. Anorectal disease. In: Haubrich, Schaffner, Berk, Bockus, eds. Gastroenterology. 5th ed. Philadelphia, PA: WB Saunders; 1995:1173-1789.

## Clinical Criteria with Description

DXCat Number: GIS19

DXCat Label: Hernia, External

Etiology:

Congenital; Degenerative

Stage	Description
1.01	Spontaneously reducible external hernia
1.02	External hernia reducible only by pressure
1.03	Irreducible external hernia
2.01	Irreducible external hernia with intestinal obstruction
2.02	Strangulated external hernia
2.03	Strangulated hernia with gangrene
2.04	Strangulated hernia with perforation
2.05	Strangulated hernia with peritonitis
3.01	Strangulated hernia with sepsis
3.02	Strangulated hernia with shock
4.00	Strangulated hernia with death

## Clinical Criteria with Description

DXCat Number: GIS19

DXCat Label: Hernia, External

Etiology:

Congenital; Degenerative

### Stage Description

### References:

Cheek CM, Williams MH, Farndon JR. Trusses in the management of hernia today. *British Journal of Surgery*. 1995;82(12):1611-1613.

Cobb R. Inguinal hernias. In: Morris JP, Malt AR, eds. *Oxford Textbook of Surgery*. Oxford University Press. 1994:1399-1404.

Davenport M. ABC of general paediatric surgery. Inguinal hernia, hydrocele, and the undescended testis. *BMJ*. 1996;312(7030):564-567.

Liem MS, van Vroonhoven TJ. Laparoscopic inguinal hernia repair. *British Journal of Surgery*. 1996;83(9):1197-1204.

McWhinnie DL. Femoral hernia. In: Morris JP, Malt AR, eds. *Oxford Textbook of Surgery*. Oxford University Press. 1994:1405-1407.

Michie HR, Berry RA. Epigastric and umbilical hernia. In: Morris JP, Malt AR, eds. *Oxford Textbook of Surgery*. Oxford University Press. 1994:1408-1409.

Moody GF, Calabuig R. Abdominal cavity: anatomy, structural anomalies, and hernias. In: Yamada T, Alpers HD, Owyang C, Powell WD, Silverstein EF, eds. *Textbook of Gastroenterology*. 2nd ed. JP Lippincott. 1995:2278-2288.

Rescorla JF. Hernias and umbilicus. In: Oldham TK, Colombani MP, Foglia P, Robert, eds. *Surgery of Infants and Children*. Lippincott-Raven. 1997;1069-1081.

Schumpelick V, Treutner KH, Arlt G. Inguinal hernia repair in adults. *Lancet*. 1994;344(8919):375-379.

## Clinical Criteria with Description

DXCat Number: GIS20

DXCat Label: Hernia, Hiatal or Reflux Esophagitis

Etiology:

Congenital; Degenerative; Idiopathic

Stage	Description
1.01	Hiatal hernia
1.02	Reflux esophagitis
1.03	Reflux esophagitis with chronic hoarseness or asthma or bronchospasm or chronic cough
2.01	with iron deficiency anemia
2.02	with Barrett's metaplasia
2.03	with stricture
2.04	Hiatal hernia with incarceration
2.05	with acute hemorrhage
2.06	with aspiration pneumonia
2.07	with perforation
3.01	with sepsis
3.02	with respiratory failure
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS20

DXCat Label: Hernia, Hiatal or Reflux Esophagitis

Etiology:

Congenital; Degenerative; Idiopathic

### Stage Description

### References:

- Duranceau A, Jamieson G. Hiatal hernia and gastroesophageal reflux. In: Sabiston D, ed. Sabiston Textbook of Surgery. 15th ed. WB Saunders. 1997:767-784.
- Field SK, et al. Prevalence of gastroesophageal reflux symptoms in asthma. Chest. 1966;109:316-322.
- Goyal RK. Diseases of the esophagus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Harding SM, et al. Asthma in gastroesophageal reflux: acid suppressive therapy improves asthma outcome. Am J Med. 1996;100:395-405.
- Klinkenberg-Knol E, Castell DO. Clinical spectrum and diagnosis of gastroesophageal reflux disease. In: Castell, ed. The Esophagus. 2nd ed. Little Brown. 1995:435-442.
- Koufman JA. The otolaryngological manifestations of gastroesophageal reflux disease. A clinical investigation of 225 patients using 24 hour ambulatory pH monitoring in experimental investigation of the role of acid in the development of laryngeal injury. Laryngoscope. 1991;101:1-65.
- McQuaid KR. Gastroesophageal reflux disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:559-563.
- Mittal RK, Balaban DH. The esophagogastric junction. N Engl J Med. 1997;336(13):924-932.
- Mittal RK. Hiatal hernia: myth or reality? American Journal of Medicine. 1997;103(5A):33S-39S.
- Ness J, et al. Prevalence of gastroesophageal reflux in consecutive patients with hoarseness. Gastroenterology. 1992;102:134-138.
- Ogorek CP. Gastroesophageal reflux disease. In: Haubrich, Schaffner, Berk, Bockus, eds. Gastroenterology. 5th ed. WB Saunders. 1995:445-467.
- Orlando RL. Reflux esophagitis. In: Yamada T, Alppers HD, Owyang C, Powell WD, Silverstein EF, eds. Textbook of Gastroenterology, 2nd ed. JP Lippincott. 1995:1214-1242.
- Stein HJ, Korn O. Pathophysiology of esophageal motor disorders and gastroesophageal reflux disease. In: Bremer GC, DeMeester RT, Peracchia A, eds. Modern Approach to Benign Esophageal Disease. Quality Medical Publishing. 1995:1-16.

## Clinical Criteria with Description

DXCat Number: GIS21

DXCat Label: Hookworm Disease

Etiology:

Infection

### Stage Description

1.01	Hookworm disease
2.01	with skin invasion or ground itch
2.02	with anemia
2.03	with hypoalbuminemia
2.04	with anasarca
2.05	with growth retardation
2.06	with pneumonia
3.01	with congestive heart failure
3.02	with shock
4.00	with death

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. *JAMA*. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Giles HM. Soil-transmitted helminths (geohelminths). In: Cook GC, ed. *Manson's Tropical Diseases*. 20th ed. Philadelphia, PA: WB Saunders; 1996:1369-1392.
- Goldsmith RS. Hookworm disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1377-1378.
- Hamer DH, Despommier DD. Other parasites, intestinal nematodes. In: Gorbach, Bartlett, Blacklow, eds. *Infectious Diseases*. 2nd ed. Philadelphia, PA: WB Saunders; 1998:2456-2462.
- Liu LX, Weller PF. Intestinal nematodes acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1208-1212.
- Plourde PJ, Keystone JS. Intestinal nematodiasis. In: Hoeprich PD, Colin Jordan M, Ronald AR, eds. *Infectious Diseases*. 5th ed. Philadelphia, PA: JB Lippincott Company; 1994:775-781.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. *JAMA*. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS22

DXCat Label: Intussusception

Etiology:

Idiopathic

### Stage Description

1.01	Intussusception
2.01	with dehydration
2.02	with bowel obstruction
2.03	with gangrene of the bowel
2.04	with peritonitis or perforation
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Begos DG, Sandor A, Modlin IM. The diagnosis and management of adult intussusception. *American Journal of Surgery*. 1997;173(2):88-94.

Grosfeld JL. Pediatric surgery. In: Sabiston Textbook of Surgery, 15th ed. Philadelphia, PA: WB Saunders; 1998:1234-1254.

Livingstone AS, Sosa JL. Ileus and obstruction. In: Haubrich, Scheaffner, Berk, eds. *Bockus Gastroenterology*, 5th ed. Philadelphia, PA: WB Saunders; 1995:1235-1248.

Rubin DC. Small intestine. In: Yamada, Alpers, Owyang, Powell, Silverstein, eds. *Textbook of Gastroenterology*. 2nd ed. Philadelphia, PA: JB Lippincott Company; 1995:1555-1576.

Silen W. Acute intestinal obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1656-1658.

## Clinical Criteria with Description

DXCat Number: GIS23

DXCat Label: Irritable Bowel Syndrome

Etiology:

Idiopathic

Stage	Description
1.01	Irritable bowel syndrome

### References:

Friedman LS. Irritable bowel syndrome. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1646-1648.

McQuaid KR. Irritable bowel syndrome. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:602-605

## Clinical Criteria with Description

DXCat Number: GIS24

DXCat Label: Malabsorption from Blind Loop Syndrome

Etiology:

Mechanical

### Stage Description

1.01	Blind loop syndrome
2.01	with anemia
2.02	with malnutrition
2.03	with hypoalbuminemia
2.04	with peripheral neuropathy or tetany or night blindness or hypocalcemia or dermatitis
2.05	with hepatitis
3.01	with renal failure
3.02	with wasting
3.03	with congestive heart failure
3.04	with shock
4.00	with death

### References:

Cooperstock M. Indigenous flora in host economy and pathogenesis. In: Geigin, Cherry, eds. Textbook of Pediatric Infectious Diseases. 3rd ed. Philadelphia, PA: WB Saunders; 1992:91-118.

Greenberger NJ, Isselbacher KJ. "Disorders of absorption. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1616-1633.

McQuaid KR. Malabsorption. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:588-594.

Ulshen M. Malabsorptive disorders. In: Bahrman, Kliegman, Arvin, Eds. Nelson Textbooks of Pediatrics. 1st ed. Philadelphia, PA: WB Saunders; 1995:1089-1101.

## Clinical Criteria with Description

DXCat Number: GIS25

Etiology:

DXCat Label: Neoplasm, Benign: Adenomatous Polyps, Colon

Neoplasm

### Stage Description

1.01	Hyperplastic polyps
1.02	Small tubular adenoma
1.03	Tubular adenoma
1.04	Tubulovillous adenoma
1.05	Villous adenoma
2.01	with rectal bleeding
2.02	Villous adenomas with hypokalemia
2.03	Familial polyposis
2.04	with carcinoma or Gardner's syndrome
2.05	with intestinal or colonic obstruction
2.06	with peritonitis
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS25

Etiology:

DXCat Label: Neoplasm, Benign: Adenomatous Polyps, Colon

Neoplasm

### Stage Description

### References:

- Bond JH. Polyp guideline: diagnosis, treatment, and surveillance for patients with nonfamilial colorectal polyps. The Practice Parameters Committee of the American College of Gastroenterology. *Ann Intern Med.* 1993;119(8):836-843.
- Bresalier RS. Malignant and premalignant lesions of the colon. In: Grendell, JH, McQuaid KR, Friedman JL, eds. *Current Diagnosis and Treatment in Gastroenterology.* Appleton and Lange, 1996:367-391.
- Cobb RD, Williamson RCN. Colonic polyps. In: Misicwicz JJ, Pounder RE, Venables CW, eds. *Diseases of the Gut and Pancreas, 2nd ed.* Blackwell Scientific Publications, 1994:865-875.
- Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.
- Luboldt W. Bauerfeind P. Steiner P. Fried M. Krestin GP. Debatin JF. Preliminary assessment of three-dimensional magnetic resonance imaging for various colonic disorders. *Lancet.* 1997;349(9061):1288-1291.
- Lynch PM. Polyposis syndromes. In: Havbrich, Schaffner, Berk, Bockus. *Gastroenterology.* Philadelphia, PA: WB Saunders; 1995:1731-1734.
- McQuaid KR. Polyps of the colon and small intestine. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:616-619.
- O'Brien MJ. Colorectal polyps. In: Cohen AM, Winawer SJ, eds. *Cancer of the Colon, Rectum, and Anus.* McGraw-Hill, Inc. 1995:127-135.
- Sandler RS. Colorectal cancer. In: Johanson JF, ed. *Risk Factors and Prevention.* Lippincott-Raven. 1997:235-253.
- Shiff SJ. Rigas B. Colon adenomatous polyps--do they grow inward?. *Lancet.* 1997;349(9069):1853-1854.
- Silen W. Acute intestinal obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1656-1658.

## Clinical Criteria with Description

DXCat Number: GIS26

DXCat Label: Neoplasm, Benign: Small Bowel

Etiology:

Neoplasm

### Stage Description

1.01	Benign tumors small bowel
2.01	with bleeding
2.02	with intestinal obstruction
2.03	with peritonitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Burke CA, Van-Stolk RU. Benign tumors of the small bowel. In: Snape WJ, ed. Consultations in Gastroenterology. Philadelphia, PA: WB Saunders; 1996:414-424.

Calam J, Williamson RCN. Neoplastic and miscellaneous diseases of small intestine. In: Misiewicz JJ, Pounder RE, Venables CW, eds. Diseases of the Gut and Pancreas. 2nd ed. Blackwell Scientific Publications. 1994:649-673.

Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.

Lightdale Ch J, Lewis LH. Tumors of the small intestine. In: Haubrich, Schaffner, Berk, Bockus. Gastroenterology. 5th ed. Philadelphia, PA: WB Saunders; 1995:1274-1290.

Mason GR. Tumors of the duodenum and small intestine. In: Sabiston, ed. Textbook of Surgery. 15th ed. WB Saunders; 1997:882-887.

McQuaid KR. Polyps of the colon and small intestine. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange, 1998:616-619.

Widgren S. "Rare and Secondary Tumors." In: Whitehead R, ed. Gastrointestinal and Oesophageal Pathology. 2nd ed. Churchill-Livingstone. 1995:849-853.

## Clinical Criteria with Description

DXCat Number: GIS27

Etiology:

DXCat Label: Neoplasm, Malignant: Colon and Rectum

Neoplasm

### Stage Description

0.00	History of colon or rectal carcinoma
1.01	Colon or rectal carcinoma in situ or limited to the mucosa and submucosa
2.01	Colon or rectal carcinoma extending to muscularis or serosa
2.02	with localized peritonitis or intra-abdominal abscess or extending to the subserosa or nonperitoneal tissue
2.03	with acute bleeding
2.04	with intestinal obstruction
2.05	with intususception or volvulus
2.06	with fistula formation
2.07	with gross perforation and peritonitis
3.01	extending to regional lymph nodes
3.02	with metastasis to extracolonic sites
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS27

Etiology:

DXCat Label: Neoplasm, Malignant: Colon and Rectum

Neoplasm

### Stage Description

### References:

- Boland CR. Malignant tumors of the colon. In: Yamada T, Alpers DH, Owyand Ch, Powell DW, Silverstein FE, eds. Textbook of Gastroenterology. 2nd ed. Lippincott-Raven. 1995:1967-2026.
- Brady PG. Indications and contraindications. In: Raskin JB, Nord HJ, eds. Colonoscopy Principles and Techniques. New York, NY, Tokyo: Igaku-Shoin; 1995:1-15.
- Green FL, Dorsay DA. Laparoscopic diagnosis, staging, and follow-up of colorectal malignancies. In: Farthmann EH, Meyer Ch, Richter HA, eds. Current Aspects of Laparoscopic Colorectal Surgery. Springer. 1997:283-295.
- Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.
- Lang NP. Thomas G. Orr Memorial Lectureship. Colon cancer from etiology to prevention. American Journal of Surgery. 1997;174(6):578-582.
- Levin B, Rajjman I. Malignant tumors of the colon and rectum. In: Haubrich, Schaffner, Berk, Bockus, eds. Gastroenterology. 5th ed. Philadelphia, PA: WB Saunders; 1995:1744-1772.
- Mayer RJ. Gastrointestinal tract cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:568-578.
- McQuaid KR. Colorectal cancer. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:619-623.
- Sandler RS. Colorectal cancer. In: Johanson JF, ed. Gastrointestinal Diseases. Lippincott-Raven. 1997:235-253.
- Turner D, Berkel HJ. Nonsteroidal anti-inflammatory drugs for the prevention of colon cancer. CMAJ. 1993;149(5):595-602.

## Clinical Criteria with Description

DXCat Number: GIS28

Etiology:

DXCat Label: Neoplasm, Malignant: Esophagus

Neoplasm

### Stage Description

0.00	History of esophageal carcinoma
1.01	Esophageal carcinoma in situ
1.02	Localized esophageal carcinoma
2.01	Extensive esophageal carcinoma
2.02	with nodal involvement
3.01	with regional metastasis
3.02	with distant metastasis
3.03	with shock
4.00	with death

### References:

- Bone RC. Sepsis, the sepsis syndrome, multi organ failure: a plea for comparable definitions. *Arch Intern Med.* 1991;114(4):332-333.
- Goyal RK. Diseases of the esophagus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Haddad NG, Fleischer DE. Neoplasms of the esophagus. In: Castel DO, ed. *The Esophagus.* 2nd ed. Little Brown. 1995:269-291.
- Harris RL, Musher DM, Bloom K, et al. Manifestations of sepsis. *Arch Intern Med.* 1987;147(11):1895-1906.
- Koch J. Esophageal tumors. In: Grendell JH, McQuaid KR, Friedman SL, eds. *Current Diagnosis & Treatment in Gastroenterology.* Appleton-Lange. 1996:274-283.
- Krevsky B. Tumors of the esophagus. In: Haubrich, Schaffner, Berk, Bockus, eds. *Gastroenterology.* 5th ed. Philadelphia, PA: WB Saunders; 1995:777-822.
- Mandard AM, Whitehead R, Li L, Hamilton SR, Bogomoletz WV. Other tumors of the oesophagus. In: Whitehead R, ed. *Gastrointestinal and Oesophageal Pathology.* 2nd ed. Churchill-Livingstone. 1995:777-822.
- McQuaid KR. Diseases of the esophagus: malignant esophageal lesions. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:569-571.
- Schmitt CM. Esophageal cancer. In: Johanson JF, ed. *Gastrointestinal Diseases.* Philadelphia, PA: Lippincott-Raven; 1997:199-215.
- Trus TL, Hunter JG. Minimally invasive surgery of the esophagus and stomach. *American Journal of Surgery.* 1997;173(3):242-255.

## Clinical Criteria with Description

DXCat Number: GIS29

Etiology:

DXCat Label: Neoplasm, Malignant: Small Bowel

Neoplasm

### Stage Description

0.00	History of malignant tumor of the small bowel.
1.01	Malignant small bowel tumors
2.01	with bleeding
2.02	with intestinal obstruction
2.03	with peritonitis
3.01	with sepsis
3.02	with distant mets
3.03	with shock
4.00	with death

### References:

- Calam J, Williamson RCN. Neoplastic and miscellaneous disease of small intestine. In: Misicwicz JJ, Pounder RE, Venables CW, eds. Diseases of the Gut and Pancreas. 2nd ed. Blackwell Scientific Publications. 1994:649-673.
- Coit DG. Cancer of the small intestine. In: Devita VT, Hellman S, Rosenberg SA, eds. Cancer Principles and Practice of Oncology. 5th ed. Lippincott-Raven. 1997:1128-1143.
- Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.
- Lightdale Ch J, Lewis LH. Tumors of the small intestine. In: Haubrich, Schaffner, Berk, Bockus, eds. Gastroenterology. 5th ed. Philadelphia, PA: WB Saunders; 1995:1274-1290.
- Mason GR. Tumors of the duodenum and small intestine. In: Sabiston, ed. Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1997:882-887.
- McQuaid KR. Malignant tumors of small intestine. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:598-599.

## Clinical Criteria with Description

DXCat Number: GIS30

Etiology:

DXCat Label: Neoplasm, Malignant: Stomach

Neoplasm

### Stage Description

0.00	History of gastric carcinoma
1.01	Limited gastric carcinoma
1.02	Mucosal gastric carcinoma
2.01	Extensive gastric carcinoma
2.02	invading beyond the serosa
3.01	with nodal involvement < 3 cm from primary tumor
3.02	with nodal involvement $\geq$ 3 cm from primary tumor
3.03	involves adjacent tissue structures
3.04	with involvement of distant lymph nodes
3.05	with extensive peritoneal tissue invasion
3.06	with distant metastasis
3.07	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS30

DXCat Label: Neoplasm, Malignant: Stomach

Etiology:

Neoplasm

### Stage Description

### References:

Allgayer H, Heiss MM, Schildberg FW. Prognostic factors in gastric cancer. *British Journal of Surgery*. 1997;84(12):1651-1664.

Boland CR, Scheiman JM. Tumors of the stomach. In: Yamada T, Alpers DH, Owyang C, Powell DW, Silverstein E, eds. *Textbook of Gastroenterology*. 2nd ed. Lippincott-Raven. 1995:1494-1522.

Elder JB. Carcinoma of the stomach. In: Haubrich, Schaffner, Berk, Bockus, eds. *Gastroenterology*. 5th ed. WB Saunders. 1995:859-874.

Fuchs CS, Mayer RJ. Gastric carcinoma. *N Engl J Med*. 1995;333(1):32-41.

Lanza RL. Benign and malignant tumors of the stomach other than carcinoma. In: Haubrich, Schaffner, Berk, Bockus, eds. *Gastroenterology*. 5th ed. WB Saunders. 1995:841-858.

Maruyama M, Baba Y, Takemoto N. Radiology. In: Sugimura T, Sasako M, eds. *Gastric Cancer*. Oxford. 1997:134-167.

Mayer RJ. Gastrointestinal tract cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:568-578.

McQuaid KR. Malignant tumors of the stomach. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:586-588.

Ohkurg H. Diagnosis: general considerations. In: Sugimura T, Sasako M, eds. *Gastric Cancer*. Oxford. 1997:127-133.

Samuel BH. Tumors of the stomach and small intestine. In: Grendell JH, McQuaid KR, Friedman SL, eds. *Current Diagnosis and Treatment in Gastroenterology*. Appleton-Lange. 1996:350-362.

Tahara E. Pathology. In: Sugimura T, Sasako M, eds. *Gastric Cancer*. Oxford. 1997:52-69.

Yoshida S. Endoscopy. In: Sugimura T, Sasako M, eds. *Gastric Cancer*. Oxford. 1997:168-188.

## Clinical Criteria with Description

DXCat Number: GIS31

DXCat Label: Peptic Ulcer Disease

Etiology:

Idiopathic; Infection, Bacterial

Stage	Description
1.01	Peptic ulcer without complications
2.01	with chronic bleeding
2.02	with obstruction
2.03	with fistula formation
2.04	with free perforation or acute hemorrhage
2.05	with generalized peritonitis
3.01	with hypotension
3.02	with sepsis
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS31

DXCat Label: Peptic Ulcer Disease

Etiology:

Idiopathic; Infection, Bacterial

### Stage Description

### References:

- Anonymous. Current European concepts in the management of helicobacter pylori infection. The Maastricht Consensus Report. European Helicobacter Pylori Study Group. *Gut*. 1997;41(1):8-13.
- Friedman LS, Peterson WL. Peptic ulcer and related disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1596-1616.
- Goodwin CS, Mendall MM, Northfield TC. Helicobacter pylori infection. *Lancet*. 1997;349(9047):265-269.
- Howden WC. Gastric and duodenal ulcers. In: Friedman G, Jacobson DE, McCallum WR. *Gastrointestinal Pharmacology and Therapeutics*. Lippincott-Raven, 1997:45-54.
- McQuaid KR. Peptic ulcer disease. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:577-584.
- Metz CD. Peptic ulcer disease: diagnosis and management. In: DiMarino JA, Benjamin BS, eds. *Gastrointestinal Disease: An Endoscopic Approach*. Blackwell-Science. 1997:285-304.
- Ofman JJ, Etchason J, Fullerton S, Kahn KL, Soll AH. Management strategies for Helicobacter pylori-seropositive patients with dyspepsia: clinical and economic consequences. *Annals of Internal Medicine*. 1997;126(4):280-291.
- Pounder ER, Fraser GA. Diagnosis, medical, management, and complication of peptic ulcer. In: Haubrich, Schaffner, Berk, Bockus, eds. *Gastroenterology*. 5th ed. WB Saunders. 1995:749-789.
- Veldhuyzen van Zanten SJ, Sherman PM, Hunt RH. Helicobacter pylori: new developments and treatments. *CMAJ*. 1997;156(11):1565-1574.

## Clinical Criteria with Description

DXCat Number: GIS32

DXCat Label: Salmonellosis

Etiology:

Infection, Bacterial

### Stage Description

1.01	Salmonellosis
2.01	Salmonellosis of the liver or bile ducts
2.02	with intestinal complications
2.03	with peritonitis
2.04	with pneumonia
3.01	with sepsis
3.02	Salmonellosis of genitourinary tract
3.03	Salmonella endocarditis or pericarditis
3.04	Salmonella meningitis
3.05	with shock
4.00	Salmonellosis with death

### References:

Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.

Anonymous. From the Centers for Disease Control and Prevention. Multidrug-resistant Salmonella serotype Typhimurium--United States, 1996. JAMA. 1997;277(19):1513.

Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.

Chambers HF. Salmonellosis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1284-1286.

Cowden J. Outbreaks of salmonellosis. BMJ. 1996;313(7065):1094-1095.

Keusch GT. Salmonellosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:950-957.

Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. JAMA. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS33

DXCat Label: Shigellosis

Etiology:

Infection, Bacterial

Stage	Description
1.01	Shigella gastroenteritis
1.02	with mild dehydration
2.01	with moderate dehydration
3.01	with severe dehydration
3.02	with renal failure
3.03	with intestinal perforation
3.04	with sepsis
3.05	with disorientation or coma
3.06	with shock
4.00	with death

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Chambers HF. Shigellosis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1286.
- Hornick RB. Shigellosis. In: Hoeprich P, Jordan M, Ronald A, Eds. Infectious Diseases. 5th ed. Philadelphia, PA: JB Lippincott Company; 1994:736-741.
- Keusch G. Shigella. In: Gorbach, Bartlett, Blacklow, Eds. Infectious Diseases, 2nd ed. Philadelphia, PA: WB Saunders; 1998:1804-1810.
- Keusch GT. Shigellosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1197-1202.
- Khan WA, Seas C, Dhar U, Salam MA, Bennish ML. Treatment of shigellosis: comparison of azithromycin and ciprofloxacin. A double-blind, randomized, controlled trial. Annals of Internal Medicine. 1997;126(9):697-703.
- Shears P, Hart C. Gastrointestinal bacteria (shigellosis, bacillary dysentery). In: Cook GC, ed. Manson's Tropical Diseases. 20th ed. Philadelphia, PA: WB Saunders; 1996:835-840.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. JAMA. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS34

DXCat Label: Trichinosis

Etiology:

Infection

### Stage Description

1.01	Trichinosis
2.01	with retinal hemorrhages
2.02	with pneumonia
3.01	with myocarditis
3.02	with meningitis or encephalitis
3.03	with congestive heart failure
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.
- Anonymous. Outbreak of trichinellosis associated with eating cougar jerky--Idaho, 1995. From the Centers for Disease Control and Prevention. JAMA. 1996;275(14):1070.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Clausen MR, Meyer CN, Krantz T, et al. Trichinella infection and clinical disease. QJM. 1996;89(8):631-636.
- Goldsmith RS. Trichinosis. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1383-1385.
- Liu LX, Weller PF. Trichinosis and infections with tissue nematodes. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1206-1208.
- Neva FA, Brown HW. Intestinal nematodes of human beings. In: Neva FA, Brown HW, eds. Basic Clinical Parasitology. 6th ed. East Norwalk, CT: Appleton & Lange; 1994:113-120.
- Pawlowski ZS. Clinical aspects in man. In: Campbell, ed. Trichinella and Trichinosis, New York, NY: Plenum Press; 1983:367-401.
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. JAMA. 1997;277(17):1337, 1339-1340.

## Clinical Criteria with Description

DXCat Number: GIS35

DXCat Label: Tropical Sprue

Etiology:

Idiopathic

### Stage Description

1.01	Tropical sprue
1.02	with macrocytic anemia
2.01	with moderate malnutrition
2.02	with severe malnutrition
3.01	with congestive heart failure
3.02	with shock
4.00	with death

### References:

Cook GC. Tropical sprue: some early investigators favoured an infective cause, but was a coccidian protozoan involved?. *Gut*. 1997;40(3):428-429.

Dobbins III OW. Chronic infections of small intestine. In: Yamada T, Alpers HD, Owyang CH, Powell WD, Silverstein EF, eds. *Textbook of Gastroenterology*. 2nd ed. JB Lippincott. 1995:1630-1643.

Garrido AJ, Sheehy WT. Tropical sprue. In: Haubrich, Schaffner, Berk, Bockus, eds. *Gastroenterology*. 3rd ed. Philadelphia, PA: WB Saunders; 1995:1049-1062.

Greenberger NJ, Isselbacher KJ. Disorders of absorption. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1616-1633.

Mathan MM. Specific infections and tropical sprue. In: Whitehead R, ed. *Gastrointestinal and Oesophageal Pathology*. 2nd ed. Churchill-Livingstone. 1995:525-546.

McQuaid KR. Malabsorption. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:588-594.

## Clinical Criteria with Description

DXCat Number: GIS36

DXCat Label: Typhoid Fever

Etiology:

Infection

Stage	Description
1.01	Typhoid carrier state
1.02	Typhoid gastroenteritis
2.01	Typhoid fever
2.02	Typhoid hepatitis or leukopenia or anemia
2.03	with gastrointestinal bleeding
2.04	Typhoid fever with hepatomegaly or splenomegaly or cholecystitis
2.05	with peritonitis
2.06	Typhoid arthritis
2.07	Typhoid osteomyelitis
2.08	Typhoid urinary pyelonephritis or renal abscess or nephritis
2.09	Typhoid pneumonitis
3.01	Typhoid endocarditis
3.02	Typhoid meningitis
3.03	with sepsis
3.04	with shock
4.00	Typhoid with death

## Clinical Criteria with Description

DXCat Number: GIS36

DXCat Label: Typhoid Fever

Etiology:

Infection

### Stage Description

### References:

- 
- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Chambers HF. Salmonellosis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1284-1286.
- 
- Humar A, Keystone J. Evaluating fever in travellers returning from tropical countries. BMJ. 1996;312(7036):953-956.
- 
- Keusch GT. "Salmonellosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:950-957.
- 
- Mandell GL, Bennett JE, Dolin R. In: Mandell, Douglas, Bennett, eds. Principles and Practice of Infectious Disease. 4th ed. Churchill-Livingstone, 1995;(2):2013-2033.
- 
- Stephenson J. New approaches for detecting and curtailing foodborne microbial infections. JAMA. 1997;277(17):1337, 1339-1340.
- 
- Zenilman JM. Typhoid fever. JAMA. 1997;278(10):847-850.

## Clinical Criteria with Description

DXCat Number: GIS37

Etiology:

DXCat Label: Ulcerative Colitis

### Stage Description

1.01	Ulcerative colitis without complications
2.01	with arthritis or uveitis or stomatitis or erythema nodosum or pyoderma gangrenosum or anemia or hypoproteinemia
2.02	with hepatitis
2.03	with cirrhosis of the liver or sclerosing cholangitis
2.04	with acute bleeding
2.05	with toxic megacolon
2.06	with colonic perforation
2.07	with peritonitis
2.08	with deep vein thrombosis
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GIS37

Etiology:

DXCat Label: Ulcerative Colitis

### Stage Description

### References:

- Bitton A, Peppercorn AM. Medical management of ulcerative colitis and other colitis syndromes. In: Friedman G, Jacobson DE, McCallum RW, eds. *Gastrointestinal Pharmacology and Therapeutics*. Philadelphia, PA: Lippincott-Raven; 1997:367-373.
- Glickman RM. Inflammatory bowel disease (ulcerative colitis and crohn's disease). In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1633-1646.
- Hamilton RS, Morson CB. Ulcerative colitis. In: Haubrich, Schaffner, Berk, Bockus, eds. *Gastroenterology*. 5th ed. Philadelphia, PA: WB Saunders; 1995:1326-1532.
- Hanauer SB. Inflammatory bowel disease. *N Engl J Med*. 1996;334(13):841-848.
- Korelit IB, Felder BJ. Gastrointestinal complications of ulcerative colitis and crohn's disease." In: Kirsner BJ, Shorter GR, eds. *Inflammatory Bowel Disease*. 4th ed. Williams-Wilkins. 1995:437-460.
- Lashner AB, Brzezinski A. Ulcerative colitis. In: DiMarino Jr JA, Benjamin BS, eds. *Gastrointestinal Disease: An Endoscopic Approach*. Blackwell Science. 1997:582-592.
- McQuaid KR. Inflammatory bowel disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:606-613.
- Rhodes JM. Unifying hypothesis for inflammatory bowel disease and associated colon cancer: sticking the pieces together with sugar. *Lancet*. 1996;347(8993):40-44.
- Sonnenberg A. Inflammatory bowel disease. In: Johanson JF, ed. *Gastrointestinal Diseases: Risk Factors and Prevention*. Philadelphia: Lippincott-Raven. 1997:67-89.

## Clinical Criteria with Description

DXCat Number: GIS38

Etiology:

DXCat Label: Vascular Insufficiency of the Bowels

### Stage Description

1.01	Intestinal angina or claudication
2.01	Intestinal infarction
2.02	with gangrene of the bowels
2.03	with perforation of the bowels or peritonitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Eldrup-Jorgensen J, Hawkins RE, Bredenberg CE. Abdominal vascular catastrophes. *Surgical Clinics of North America*. 1997;77(6):1305-1320.

Ellis DJ, Brandt LJ. Mesenteric vascular disease. In: Grendell JH, McQuaid KR, Friedman SL, eds. *Current Diagnosis and Treatment in Gastroenterology*. Appleton & Lange, 1996:127-140.

Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1648-1656.

Marston A, Taylor M. Acute intestinal ischemia. In: Taylor MB, Gollan JL, Steer ML, Wolfe MM, eds. *Gastrointestinal Emergencies*. 2nd ed. Williams & Wilkins, 1997:555-570.

Mulholland MW. Approach to the patient with acute abdomen. In: Yamada T, Alpers DH, Owyang, CH, Powell DW, Silverstein FE, eds. *Textbook of Gastroenterology, Vol I*, 2nd ed. Philadelphia, PA: Lippincott-Raven Co.; 1995:783-786

Rogers AL, David S. Intestinal blood flow and disease of vascular impairment. In: Havbrich, Schaffner, Berk, eds. *Bockus Gastroenterology*. 5th ed. Philadelphia, PA: WB Saunders; 1995:1212-1234.

Silen W. Acute intestinal obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1656-1658.

Tierney Jr LM, Messina LM. Visceral artery insufficiency. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:458.

## Clinical Criteria with Description

DXCat Number: GIS80

Etiology:

DXCat Label: Complications of Gastrointestinal Treatment

Stage	Description
1.01	Mechanical complications of gastrostomy, colostomy; post GI surgery syndrome, postop malabsorption, vomiting, or functional disorder
2.01	Infection of gastrostomy, colostomy, radiation gastroenteritis

### References:

## Clinical Criteria with Description

DXCat Number: GIS81

Etiology:

DXCat Label: Gastroenteritis

Stage	Description
1.01	Gastroenteritis with or without mild dehydration
2.01	with moderate dehydration
3.01	with severe dehydration
3.02	with severe dehydration and renal failure

### References:

## Clinical Criteria with Description

DXCat Number: GIS82

Etiology:

DXCat Label: Neoplasm, Benign: Other Gastrointestinal System

Neoplasm

Stage	Description
1.01	Benign neoplasm gastrointestinal system

### References:

## Clinical Criteria with Description

DXCat Number: GIS83

Etiology:

DXCat Label: Neoplasm, Malignant: Other Gastrointestinal System

Neoplasm

Stage	Description
0.00	History of other gastrointestinal malignancy
1.01	Primary malignant neoplasm of peritoneum or other gastrointestinal or intra-abdominal site
2.01	with abdominal or peritoneal lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: GIS84

Etiology:

DXCat Label: Other Diseases of Esophagus, Stomach, and Duodenum

Stage	Description
1.01	Esophagitis, duodenitis, dilation of stomach
2.01	with hemorrhage, obstruction or fistula

### References:

## Clinical Criteria with Description

DXCat Number: GIS85

Etiology:

DXCat Label: Other Gastrointestinal Disorders

Stage	Description
1.01	Peritoneal adhesions, rectal prolapse, angiodysplasia, malabsorption
2.01	Paralytic ileus, volvulus, or other intestinal obstruction, hemoperitoneum, effusion, fistula, GI hemorrhage

### References:

## Clinical Criteria with Description

DXCat Number: GIS86

Etiology:

DXCat Label: Other Gastrointestinal Infections

Stage	Description
2.01	Pneumococcal peritonitis, intestinal abscess

References:

## Clinical Criteria with Description

DXCat Number: GIS87

Etiology:

DXCat Label: Other Gastrointestinal or Abdominal Symptoms

Stage	Description
1.01	Nausea, vomiting, heartburn, abnormal bowel sounds, diarrhea

References:

## Clinical Criteria with Description

DXCat Number: GUS01

DXCat Label: Bladder Disorders

Etiology:

Degenerative; Trauma; Metabolic

### Stage Description

1.01	Irradiation cystitis or chronic cystitis or calcified bladder or contracted bladder or hypertonic bladder or atonic bladder or diverticulum of bladder
1.02	Bladder neck obstruction
2.01	Bladder fistula
2.02	Enterovesical fistula
2.03	Hemorrhage into bladder wall
2.04	Rupture of the bladder
2.05	with chronic renal failure
3.01	with acute renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Coe FL, Brenner BM. Approach to the patient with diseases of the kidneys and urinary tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1495-1498.

Dawson C, Whitfield H. ABC of urology. Urological trauma and bladder reconstruction. BMJ. 1996;312(7042):1352-4.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:878-916.

## Clinical Criteria with Description

DXCat Number: GUS02

DXCat Label: Calculus of the Urinary Tract

Etiology:

Metabolic

### Stage Description

1.01	Nephrolithiasis
2.01	with urinary tract infection
2.02	with hydronephrosis
2.03	with azotemia
2.04	with chronic renal failure
3.01	with acute renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Asplin JR, Coe FL. Hereditary tubular disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1562-1569.

Morrison G. Kidney. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:850-878.

Pak CY. Kidney stones. Lancet. 1998;351(9118):1797-801.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:878-916.

Wickham JE. Treatment of urinary tract stones. BMJ. 1993;307(6916):1414-7.

## Clinical Criteria with Description

DXCat Number: GUS03

DXCat Label: Glomerulonephritis, Acute

Etiology:

Infection; Metabolic; Toxicologic

### Stage Description

1.01	Focal Glomerulonephritis
2.01	Glomerulonephritis
2.02	with hypertension
2.03	with nephrotic syndrome
3.01	with renal failure
3.02	with congestive heart failure
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

### References:

Brady HR, O'Meara YM, Brenner BM. The major glomerulopathies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1536-1545.

Hricik DE, Chung-Park M, Sedor JR. Glomerulonephritis. N Engl J Med. 1998;339(13):888-99.

Mason PD, Pusey CD. Glomerulonephritis: diagnosis and treatment. BMJ. 1994;309(6968):1557-63.

Morrison G. Kidney." In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:850-878.

## Clinical Criteria with Description

DXCat Number: GUS04

DXCat Label: Injury: Urinary Tract

Etiology:

Trauma

### Stage Description

1.01	Trauma of urethra
1.02	Trauma of the bladder
1.03	Trauma of the ureters
1.04	Trauma of the kidney
2.01	with hemorrhage
2.02	with obstruction
3.01	with acute renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Coe FL, Brenner BM. Approach to the patient with diseases of the kidneys and urinary tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1495-1498.

Dawson C, Whitfield H. ABC of urology. Urological trauma and bladder reconstruction. BMJ. 1996;312(7042):1352-4.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:878-916.

## Clinical Criteria with Description

DXCat Number: GUS05

DXCat Label: Neoplasm, Malignant: Bladder, Urinary

Etiology:

Neoplasm

### Stage Description

0.00	History of carcinoma of the bladder
1.01	Carcinoma of the bladder in situ or papillary noninvasive bladder carcinoma
1.02	within the mucosa
2.01	with invasion of the superficial muscle layer of the bladder
3.01	with invasion of deep muscles
3.02	with local invasion
3.03	with nodal involvement
3.04	with distant metastasis
3.05	with shock
4.00	with death

### References:

Cornella JL, Larson TR, Lee RA, Magrina JF, Kammerer-Doak D. Leiomyoma of the female urethra and bladder: report of twenty-three patients and review of the literature. *American Journal of Obstetrics & Gynecology*. 1997;176(6):1278-85.

Hall RR. Superficial bladder cancer. *BMJ*. 1994;308(6933):910-3.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:878-916.

Scher HI, Motzer RJ. Bladder and renal cell cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:592-596.

## Clinical Criteria with Description

DXCat Number: GUS06

DXCat Label: Neoplasm, Malignant: Kidneys

Etiology:

Neoplasm

### Stage Description

0.00	History of cancer of the kidneys
1.01	Cancer confined to the kidney
2.01	Cancer extends through the renal capsule but is confined by Gerota's fascia
2.02	Cancer invading renal vein or cancer extending into vena cava
3.01	Cancer extending to hilar lymph nodes
3.02	Cancer of the kidneys with distant metastasis
4.00	Cancer of the kidneys and death

### References:

Motzer RJ, Bander NH, Nanus DM. Renal-cell carcinoma. *N Engl J Med.* 1996;335(12):865-75.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:878-916.

Scher HI, Motzer RJ. Bladder and renal cell cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:592-596.

## Clinical Criteria with Description

DXCat Number: GUS07

DXCat Label: Nephrotic Syndrome

Etiology:

Genetic (or hereditary); Immune; Metabolic; Toxicologic

### Stage Description

2.01	Nephrotic syndrome
2.02	with hypercholesteremia
2.03	with hypertension
2.04	with deep vein thrombosis
2.05	with renal vein thrombosis
2.06	with peritonitis
2.07	with chronic renal failure
3.01	with acute renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Brater DC. Diuretic therapy. *N Engl J Med.* 1998;339(6):387-95.

Coe FL, Brenner BM. Approach to the patient with diseases of the kidneys and urinary tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1495-1498.

Morrison G. Kidney. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:850-878.

Orth SR, Ritz E. The nephrotic syndrome. *N Engl J Med.* 1998;338(17):1202-11.

## Clinical Criteria with Description

DXCat Number: GUS08

DXCat Label: Renal Failure

Etiology:

Idiopathic

### Stage Description

2.01	Azotemia
2.02	Azotemia with hypertension
2.03	Azotemia with oliguria
2.04	Chronic renal failure
3.01	Acute renal failure
3.02	with pericarditis
3.03	with coagulation defect
3.04	with acute congestive heart failure
3.05	with pulmonary edema
3.06	with shock or ventricular fibrillation or ventricular flutter
4.00	with death

### References:

Abuelo JG. Diagnosing vascular causes of renal failure. *Annals of Internal Medicine*. 1995;123(8):601-14.

Brady HR, Brenner BM. Acute renal failure. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1504-1513.

Brady HR, Singer GG. Acute renal failure. *Lancet*. 1995;346(8989):1533-40.

Carpenter CB, Lazarus JM. Dialysis and transplantation in the treatment of renal failure. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1520-1529.

Lazarus JM, Brenner BM. Chronic renal failure. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1513-1520.

Morrison G. Kidney. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:850-878.

## Clinical Criteria with Description

DXCat Number: GUS09

DXCat Label: Urethritis

Etiology:

Infection

### Stage Description

1.01	Urethritis
1.02	with cystitis
1.03	with chronic or recurrent prostatitis
1.04	with epididymitis
1.05	with acute prostatitis
1.06	Urethral abscess
2.01	with obstruction
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Morrison G. Kidney. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:850-878.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:878-916.

Schmid GP, Fontanarosa PB. Evolving strategies for management of the nongonococcal urethritis syndrome. JAMA. 1995;274(7):577-9.

Stamm WE, Hicks CB, Martin DH, et al. Azithromycin for empirical treatment of the nongonococcal urethritis syndrome in men. A randomized double-blind study. JAMA. 1995;274(7):545-9.

Stamm WE. Urinary tract infections and pyelonephritis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:817-824.

## Clinical Criteria with Description

DXCat Number: GUS10

DXCat Label: Urinary Tract Infections

Etiology:

Infection

### Stage Description

1.01	Urinary tract infection
1.02	Acute cystitis
2.01	Acute pyelonephritis
2.02	with bacteremia
2.03	Acute pyelonephritis with obstruction
2.04	with perinephric abscess
2.05	with necrotizing papillitis
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Coe FL, Brenner BM. Approach to the patient with diseases of the kidneys and urinary tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1495-1498.

Dawson C, Whitfield H. ABC of urology. Urinary incontinence and urinary infection. BMJ. 1996;312(7036):961-4.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:878-916.

Seifter JL, Brenner BM. Urinary tract obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine, 14th 3d. New York, NY: McGraw-Hill; 1998:1574-1579.

Stamm WE, Hooton TM. Management of urinary tract infections in adults. N Engl J Med. 1993;329(18):1328-34.

Stamm WE. Urinary tract infections and pyelonephritis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:817-824.

## Clinical Criteria with Description

DXCat Number: GUS80

Etiology:

DXCat Label: Neoplasm, Benign: Urinary Tract

Neoplasm

Stage	Description
1.01	Benign neoplasm of urinary tract

### References:

## Clinical Criteria with Description

DXCat Number: GUS81

Etiology:

DXCat Label: Neoplasm, Malignant: Other Genitourinary System

Neoplasm

Stage	Description
0.00	History of malignant neoplasm of other urinary sites
1.01	Primary malignant neoplasm of ureter, urethra, and other urinary sites
2.01	with lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metsastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: GUS83

Etiology:

DXCat Label: Other Disorders of Kidney or Ureter

Stage	Description
1.01	Impaired renal function, small kidney, hydronephrosis, nephroptosis, stricture or obstruction of ureter
2.01	Renal sclerosis, osteodystrophy, chronic pyelonephritis, vesicoureteral reflux with nephropathy, urethral syndrome
3.01	with acute renal failure

### References:

## Clinical Criteria with Description

DXCat Number: GUS84

Etiology:

DXCat Label: Other Urinary Symptoms

Stage	Description
1.01	Dysuria, urinary retention, incontinence, polyuria, oliguria, discharge, extravasation of urine
2.01	Renal colic

References:

## Clinical Criteria with Description

DXCat Number: GYN01

DXCat Label: Abortion: Elective

Etiology:

Pregnancy

### Stage Description

1.01	Elective abortion
1.02	Elective abortion of uterus $\geq$ 12 weeks gestation
2.01	Perforation of uterus
2.02	with laceration of bladder
2.03	with perforation of the bowels
2.04	with peritonitis
2.05	with laceration of pelvic arteries and mesenteric arteries
3.01	with pulmonary embolism
3.02	with renal failure
3.03	with sepsis
3.04	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

## Clinical Criteria with Description

DXCat Number: GYN02

DXCat Label: Abortion: Spontaneous

Etiology:

Pregnancy

### Stage Description

1.01	Threatened abortion
1.02	Inevitable abortion
1.03	Incomplete abortion
1.04	Missed abortion
1.05	Complete abortion
2.01	with hemorrhage
2.02	with chorioamnionitis or endometritis
3.01	with disseminated intravascular coagulation
3.02	with pulmonary embolism
3.03	with renal failure
3.04	with sepsis
3.05	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

Cunningham FG, MacDonald PC, Gant NF, Lareno K, Gilstrap LC, eds. Williams Obstetrics. 19th ed. Norwalk, CT: Appleton & Lange; 1994.

## Clinical Criteria with Description

DXCat Number: GYN03

DXCat Label: Abruptio Placentae

Etiology:

Pregnancy

### Stage Description

1.01	Localized abruptio placentae, grade I
2.01	Moderate abruptio placentae or grade II
2.02	Severe abruptio placentae, grade III
3.01	with disseminated intravascular coagulation
3.02	with renal failure
3.03	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

Cunningham FG, MacDonald PC, Gant NF, Lareno K, Gilstrap LC, eds. Williams Obstetrics. 19th ed. Norwalk, CT: Appleton & Lange; 1994.

## Clinical Criteria with Description

DXCat Number: GYN04

DXCat Label: Anomaly: External Female Genitalia

Etiology:

Congenital

### Stage Description

1.01	Agglutination of the labia or labial fusion
1.02	Imperforate hymen
1.03	Septate vagina or double vagina
1.04	Transverse vaginal septum
1.05	Cloaca
2.01	Congenital absence of the vagina
2.02	Female pseudohermaphroditism or total absence of vagina

### References:

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Wentz AC. Congenital anomalies and intersexuality. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:140-188.

## Clinical Criteria with Description

DXCat Number: GYN05

DXCat Label: Anomaly: Uterus

Etiology:

Congenital

### Stage Description

1.01	Arcuate uterus
1.02	Septate uterus
1.03	Uterus bicornuate
1.04	Uterus bicornuate bicollis
1.05	Uterus didelphys
1.06	Asymmetrical double uterus
1.07	Unicornuate uterus
1.08	Rudimentary uterine horn
1.09	Blind uterine horn
1.10	Absence of the uterus

### References:

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Wentz AC. Congenital anomalies and intersexuality. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:140-188.

## Clinical Criteria with Description

DXCat Number: GYN06

DXCat Label: Ante- and Postpartum Complications

Etiology:

Pregnancy

### Stage Description

1.01	Pregnancy with hyperemesis gravidarum
1.02	with malpresentation
1.03	with bacteriuria
1.04	with vaginal bleeding
2.01	with preterm labor
2.02	with chorioamnionitis
2.03	with deep vein thrombosis
3.01	with pulmonary embolism
3.02	with renal failure
3.03	with congestive heart failure
3.04	with sepsis
3.05	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

## Clinical Criteria with Description

DXCat Number: GYN07

DXCat Label: Bartholinitis

Etiology:

Infection

Stage	Description
1.01	Bartholin's gland cyst
1.02	Bartholinitis
1.03	with abscess formation

### References:

Holmes KK, Morse SA. Gonococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:915-922.

Jones III HW. Benign diseases of the vulva and vagina. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:589-590.

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

## Clinical Criteria with Description

DXCat Number: GYN08

DXCat Label: Chancroid

Etiology:

Infection, Bacterial

### Stage Description

1.01	Soft chancre
2.01	Chancroid with phimosis
2.02	with urethral stricture
2.03	with urethral fistula

### References:

Chambers HF. Infectious diseases: bacterial & chlamydial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. In: Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1267-1304.

Marrazzo JM, Handsfield HH. Chancroid: new developments in an old disease. Current Clinical Topics in Infectious Diseases. 1995;15:129-52.

Murphy TF, Kasper DL. Infections due to haemophilus influenzae, other haemophilus species, the HACEK Group, and other gram-negative bacilli. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:924-928.

## Clinical Criteria with Description

DXCat Number: GYN09

DXCat Label: Delivery, Cesarean Section

Etiology:

Pregnancy

### Stage Description

1.01	Cesarean section without complications
1.02	with wound hematoma or other minor complications
1.03	with superficial abscess of incision area or cellulitis
1.04	with endometritis
2.01	with incision area dehiscence
2.02	with deep abscess or necrotizing fasciitis
2.03	with peritonitis
2.04	with rupture of the uterus
3.01	with pulmonary embolism
3.02	with renal failure
3.03	with congestive heart failure
3.04	with sepsis
3.05	with respiratory failure
3.06	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

Cunningham FG, MacDonald PC, Gant NF, Larena K, Gilstrap LC, eds. Williams Obstetrics. 19th ed. Norwalk, CT: Appleton & Lange; 1994.

## Clinical Criteria with Description

DXCat Number: GYN10

DXCat Label: Delivery, Vaginal

Etiology:

Pregnancy

### Stage Description

1.01	Vaginal delivery with no complications or minor complications or delivery with first degree laceration
1.02	with second degree laceration or uterine atony with bleeding or retained placental fragments
2.01	with third degree laceration
2.02	with fourth degree laceration
2.03	with laceration of the cervix or vaginal sulcus
2.04	with marked hemorrhage
2.05	with laceration of the bladder or urethra
2.06	with deep vein thrombosis
2.07	with inversion of the uterus
2.08	with rupture of the uterus
3.01	with pulmonary embolism
3.02	with renal failure
3.03	with congestive heart failure
3.04	with sepsis
3.05	with respiratory failure
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GYN10

DXCat Label: Delivery, Vaginal

Etiology:

Pregnancy

**Stage Description**

### References:

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Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

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Cunningham FG, MacDonald PC, Gant NF, Lareno K, Gilstrap LC, eds. Williams Obstetrics. 19th ed. Norwalk, CT: Appleton & Lange; 1994.

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## Clinical Criteria with Description

DXCat Number: GYN11

DXCat Label: Dysfunctional Uterine Bleeding

Etiology:

Metabolic

### Stage Description

1.01	Hypomenorrhea, puberty bleeding, ovulation bleeding or metrorrhagia
1.02	Hypermenorrhea or polymenorrhea
2.01	Dysfunctional uterine bleeding and anemia
2.02	Dysfunctional uterine bleeding and marked anemia

### References:

Carr BR, Bradshaw KD. Disorders of the ovary and female reproductive tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2097-2115.

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Wentz AC. Abnormal uterine bleeding. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:378-396.

## Clinical Criteria with Description

DXCat Number: GYN12

DXCat Label: Ectopic Pregnancy

Etiology:

Pregnancy

Stage	Description
1.01	Tubal pregnancy
2.01	Ruptured tubal pregnancy
3.01	Abdominal pregnancy
3.02	with shock
4.00	Ectopic pregnancy with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine, 4th Ed., Saunders, 1999.

Cunningham FG, MacDonald PC, Gant NF, Lareno K, Gilstrap LC, eds. Williams Obstetrics, 19th Ed. Norwalk: Appleton & Lange, 1994.

## Clinical Criteria with Description

DXCat Number: GYN13

DXCat Label: Endometriosis

Etiology:

Idiopathic

### Stage Description

1.01	Endometriosis interna
1.02	Endometriosis externa, mild
2.01	Endometriosis externa
2.02	with ureteral obstruction or hydronephrosis
2.03	with intestinal obstruction
2.04	with peritonitis
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

American College of Obstetrics and Gynecology. Endometriosis. ACOG Technical Bulletin 184. Washington, DC: ACOG 1993.

Carr BR, Bradshaw KD. Disorders of the ovary and female reproductive tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2097-2115.

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Wentz AC. Endometriosis. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:303-327.

## Clinical Criteria with Description

DXCat Number: GYN14

DXCat Label: Gonorrhea: Female

Etiology:

Infection, Bacterial

### Stage Description

1.01	Carrier or suspected carrier of gonorrhea
1.02	Gonococcal endocervicitis or gonococcal infection of Skene's glands or gonococcal infection of Bartholin's glands or gonococcal pharyngitis or gonococcal conjunctivitis or gonococcal vulvovaginitis or gonococcal urethritis or gonococcal proctitis
2.01	Gonococcal pelvic inflammatory disease
2.02	with dermatitis
2.03	with peritonitis
3.01	with septic arthritis
3.02	Gonococcal endocarditis or gonococcal pericarditis
3.03	Gonococcal meningitis
3.04	with congestive heart failure
3.05	with sepsis
3.06	with shock
4.00	with death

### References:

Eschenbach DA. Pelvic infections and sexually transmitted diseases. In: Scott JR, Disaia PJ, Hammond CB, Spellacy WN, eds. Danforth's Obstetrics and Gynecology. 6th ed. Philadelphia, PA: JB Lippincott; 1990:944-947.

Feigin RD, Sugerman R. Gonococcal infections. In: Behrman RE, Kliegman RM, Vaughan III VC, Nelson WE, eds. Nelson Textbook of Pediatrics. 14th ed. Philadelphia, PA: WB Saunders; 1992:716-720.

Holmes KK, Morse SA. Gonococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:915-922.

Mackay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

## Clinical Criteria with Description

DXCat Number: GYN15

DXCat Label: Mastitis

Etiology:

Infection

Stage	Description
1.01	Acute mastitis
2.01	with abscess formation
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Giuliano AE. Breast. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:666-689.

O'Hara RJ, Dexter SP, Fox JN. Conservative management of infective mastitis and breast abscesses after ultrasonographic assessment. British Journal of Surgery 1996;83(10):1413-4.

Schein M. Subareolar breast abscesses. Surgery 1996;120:902.

## Clinical Criteria with Description

DXCat Number: GYN16

Etiology:

DXCat Label: Neoplasm, Benign: Breast

Neoplasm

### Stage Description

1.01	Contusion of the breast
1.02	Hematoma of the breast
1.03	Fat necrosis of the breast
1.04	Fibroadenoma of the breast
1.05	Fibrocystic disease of the breast or chronic cystic mastitis or solitary cyst or benign mammary dysplasia
2.01	Intraductal papilloma

### References:

Colditz GA et al: The use of estrogens and progestins and the risk of breast cancer in postmenopausal women. *N Engl J Med* 1995;332:1589.

Dixon JM, McDonald C, Elton RA, Miller WR. Breast cancer risk with cyst type in cystic disease of the breast. Larger study found no association between cyst type and breast cancer. *BMJ* 1997;315(7107):545-6.

Fiorica JV. Fibrocystic changes. *Obstet Gynecol Clin North Am* 1994;12:4

Giuliano AE. Breast. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:666-689.

## Clinical Criteria with Description

DXCat Number: GYN17

DXCat Label: Neoplasm, Benign: Ovary

Etiology:

Neoplasm

### Stage Description

1.01	Follicle cysts or corpus luteum cysts
1.02	Dermoid cysts
1.03	Serous cystic tumors
1.04	Endometrioid tumors or mucinous cystic tumors
1.05	Benign ovarian tumors and abdominal distention or symptoms of pressure on surrounding organs
1.06	Benign ovarian tumors and torsion of the ovaries
2.01	Benign ovarian tumors with rupture
2.02	Benign ovarian tumors with peritonitis
3.01	Benign ovarian tumors with sepsis
3.02	Benign ovarian tumors with shock
4.00	Benign ovarian tumors with death

### References:

- Crombleholme WR. Obstetrics. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:724-748.
- Jones III HW. Ovarian cysts and tumors. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:782-791.
- MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.
- Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.

## Clinical Criteria with Description

DXCat Number: GYN18

Etiology:

DXCat Label: Neoplasm, Benign: Uterus (Leiomyomas)

Neoplasm

### Stage Description

1.01	Uterine leiomyomas
2.01	with anemia
2.02	with pressure on bladder or rectum or bowels
2.03	with urinary retention
2.04	with hydronephrosis or hydroureter
2.05	with intestinal obstruction
2.06	with peritonitis
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

- Crombleholme WR. Obstetrics. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:724-748.
- Jones III HW. Ovarian cysts and tumors. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:782-791.
- MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724
- Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.

## Clinical Criteria with Description

DXCat Number: GYN19

Etiology:

DXCat Label: Neoplasm, Malignant: Breast, Female

Neoplasm

### Stage Description

0.00	History of carcinoma of the breast
1.01	in situ
1.02	Cystosarcoma phyllodes
1.03	≤ 2cm in diameter
1.04	> 2cm and ≤ 5cm in diameter or single ipsilateral node involved
2.01	> 5cm in diameter
3.01	Nodal involvement with fixation
3.02	tumor extension to skin or tumor extension to chest or internal mammary node involvement
3.03	with metastasis
4.00	with death

### References:

American Joint Committee on Cancer. Manual for Staging of Cancer. Lippincott, 1992.

Berg JW, Hutter RVP. Breast cancer. Cancer 1995;75:257.

Giuliano AE. Breast. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:666-689.

Lippman ME. "Breast Cancer." In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:562-568.

Piccirillo JF, Feinstein AR. Clinical symptoms and co-morbidity: significance for the prognostic classification of cancer. Cancer 1996;77:834.

Silverstein MJ. Recent advances. Diagnosis and treatment of early breast cancer. BMJ. 1997;314(7096):1736-9.

## Clinical Criteria with Description

DXCat Number: GYN20

Etiology:

DXCat Label: Neoplasm, Malignant: Cervix Uteri

Neoplasm

### Stage Description

0.00	History of cervical carcinoma
1.01	Minimal cervical dysplasia
1.02	Severe cervical dysplasia
1.03	Carcinoma in situ or intraepithelial carcinoma
1.04	Microinvasive carcinoma or minimal stromal invasion
2.01	Macroscopic cervical carcinoma < 4cm confined to the cervix
2.02	Macroscopic cervical carcinoma ≥ 4cm confined to the cervix
2.03	with extension to upper third of vagina
2.04	with parametrial involvement
3.01	involves lower third of the vagina
3.02	with extension to the pelvic wall or renal involvement
3.03	with involvement of the bladder or rectum
3.04	with distant organ involvement
4.00	with death

## Clinical Criteria with Description

DXCat Number: GYN20

Etiology:

DXCat Label: Neoplasm, Malignant: Cervix Uteri

Neoplasm

### Stage Description

### References:

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American College of Obstetricians and Gynecologists. Classification and staging of gynecologic malignancies. ACOG Technical Bulletin 155. Washington, DC: ACOG 1991.

Elkas JC, Farias-Eisner R, Berek JS. Cervix, Vulva, and Vagina. In: Abeloff: Clinical Oncology, 2nd ed., Churchill Livingstone, Inc; 2000: 1946-1966

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Sheets EE. The Cervix. In: Ryan: Kistner's Gynecology & Women's Health, 7th ed., Mosby, Inc; 1999: 100-118.

Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.

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## Clinical Criteria with Description

DXCat Number: GYN22

Etiology:

DXCat Label: Neoplasm, Malignant: Endometrium

Neoplasm

### Stage Description

0.00	History of endometrial carcinoma
1.01	Endometrial carcinoma in situ
1.02	Confined to the corpus uteri mucosa
1.03	Confined to <50% of corpus uteri myometrial invasion
1.04	Confined to corpus uteri with >50% myometrial invasion
2.01	Involving the inguinal nodes
2.02	Involving the cervical stroma
3.01	Extending to uterine serosa, adnexa or peritoneal cytology
3.02	Extending to vagina
3.03	Extending to pelvic and paraaortic lymph nodes
3.04	Extending to bladder or rectal mucosa
3.05	Extending to distant organs or inguinal lymph nodes
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: GYN22

Etiology:

DXCat Label: Neoplasm, Malignant: Endometrium

Neoplasm

### Stage Description

### References:

- 
- American College of Obstetricians and Gynecologists. Classification and staging of gynecologic malignancies. ACOG Technical Bulletin 155. Washington, DC: ACOG 1991.
- Jones III HW. Ovarian cysts and tumors. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:782-791.
- MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.
- Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.
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## Clinical Criteria with Description

DXCat Number: GYN23

DXCat Label: Neoplasm, Malignant: Ovaries

Etiology:

Neoplasm

### Stage Description

0.00	History of ovarian carcinoma
1.01	Ovarian carcinoma limited to one ovary with intact ovarian capsule
1.02	Limited to both ovaries with intact ovarian capsule
1.03	with ascites or malignant cells in peritoneal washings or rupture of ovarian capsule or spilling on external surface of ovary with carcinoma
2.01	with extension to the uterus or fallopian tubes
2.02	with extension to other pelvic structures
2.03	with pelvic extension and ascites
3.01	with peritoneal micro-metastasis
3.02	with visible peritoneal/abdominal metastasis < 2cm in greatest dimension
3.03	with visible peritoneal/abdominal metastasis =2cm in dimension and/or pelvic/abdominal lymph nodes
3.04	with distant metastasis or liver parenchymal involvement or positive pleural cytology
4.00	with death

### References:

- American College of Obstetricians and Gynecologists. Classification and staging of gynecologic malignancies. ACOG Technical Bulletin 155. Washington, DC: ACOG 1991.
- Jones III HW. Ovarian cysts and tumors. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:782-791.
- MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.
- Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.

## Clinical Criteria with Description

DXCat Number: GYN24

Etiology:

DXCat Label: Neoplasm, Malignant: Vagina

Neoplasm

### Stage Description

0.00	History of carcinoma of the vagina
1.01	Carcinoma of the vagina in situ
1.02	limited to the vaginal mucosa
2.01	with involvement of the subvaginal tissue
3.01	with extension to the pelvic side wall
3.02	with extension beyond the true pelvis
3.03	with shock
4.00	with death

### References:

- American College of Obstetricians and Gynecologists. Classification and staging of gynecologic malignancies. ACOG Technical Bulletin 155. Washington, DC: ACOG 1991.
- Jones III HW. Ovarian cysts and tumors. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:782-791.
- MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.
- Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.

## Clinical Criteria with Description

DXCat Number: GYN25

DXCat Label: Neoplasm, Malignant: Vulva

Etiology:

Neoplasm

### Stage Description

0.00	History of carcinoma of the vulva
1.01	Carcinoma in situ of the vulva
1.02	Confined to the vulva and ≤ 2cm in diameter
2.01	Confined to the vulva but >2cm in diameter
3.01	with spread to adjacent organs
3.02	Invading the bladder or rectum or distant organs
3.03	WITH SHOCK
4.00	with death

### References:

- American College of Obstetricians and Gynecologists. Classification and staging of gynecologic malignancies. ACOG Technical Bulletin 155. Washington, DC: ACOG 1991.
- Jones III HW. Ovarian cysts and tumors. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:782-791.
- MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.
- Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.

## Clinical Criteria with Description

DXCat Number: GYN26

DXCat Label: Neoplasm: Trophoblastic Disease

Etiology:

Neoplasm

Stage	Description
1.01	Hydatidiform mole
2.01	Hydatidiform mole with pre-eclampsia
2.02	Trophoblastic disease with hyperthyroidism
2.03	Trophoblastic disease with endometritis or myometritis
2.04	Persistent trophoblastic disease
2.05	Trophoblastic disease with uterine hemorrhage
2.06	Invasive mole
2.07	Trophoblastic disease with choriocarcinoma
2.08	Trophoblastic disease with disseminated intravascular coagulation
3.01	Trophoblastic disease with metastasis
3.02	Trophoblastic disease with pulmonary embolism
3.03	Trophoblastic disease with sepsis
3.04	Trophoblastic disease with respiratory failure
3.05	Trophoblastic disease with shock
4.00	Trophoblastic disease with death

## Clinical Criteria with Description

DXCat Number: GYN26

Etiology:

DXCat Label: Neoplasm: Trophoblastic Disease

Neoplasm

### Stage Description

### References:

American College of Obstetrics and Gynecology. Management of gestational trophoblastic disease. Technical Bulletin 178. Washington, DC: ACOG 1993.

Crombleholme WR. Obstetrics. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:724-748.

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Young RC. Gynecologic malignancies. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:605-611.

## Clinical Criteria with Description

DXCat Number: GYN27

DXCat Label: Obstructed Labor

Etiology:

Pregnancy

### Stage Description

1.01	Failed induction
1.02	Failure to dilate or descend
2.01	Malposition of the fetus
2.02	Macrosomia of the fetus
2.03	Shoulder dystocia
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

## Clinical Criteria with Description

DXCat Number: GYN28

DXCat Label: Pelvic Inflammatory Disease

Etiology:

Infection

Stage	Description
1.01	Pelvic inflammatory disease
2.01	with pelvic abscess
2.02	with generalized peritonitis
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Cartwright PS. Pelvic inflammatory disease. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:507-525.

Holmes KK. Pelvic inflammatory disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:812-817.

Mackay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

## Clinical Criteria with Description

DXCat Number: GYN29

DXCat Label: Placenta Previa

Etiology:

Pregnancy

Stage	Description
1.01	Marginal placenta previa
1.02	Partial placenta previa
2.01	Complete placenta previa
2.02	with hemorrhage
2.03	with chorioamnionitis or endometritis
2.04	with placenta accreta
2.05	with placenta increta
2.06	with placental percreta
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

Cunningham FG, MacDonald PC, Gant NF, Lareno K, Gilstrap LC, eds. Williams Obstetrics. 19th ed. Norwalk, CT: Appleton & Lange; 1994.

## Clinical Criteria with Description

DXCat Number: GYN30

DXCat Label: Pregnancy-Induced Hypertension

Etiology:

Pregnancy

Stage	Description
1.01	Pre-eclampsia
2.01	Severe pre-eclampsia
2.02	with abruptio placentae
2.03	with disseminated intravascular coagulation
3.01	with renal failure
3.02	with congestive heart failure
3.03	with intracerebral hemorrhage
3.04	with shock
4.00	with death

### References:

Creasy R, Resnik R. Maternal Fetal Medicine. 4th ed. Saunders. 1999.

Cunningham FG, MacDonald PC, Gant NF, Lareno K, Gilstrap LC, eds. Williams Obstetrics. 19th ed. Norwalk, CT: Appleton & Lange; 1994.

## Clinical Criteria with Description

DXCat Number: GYN31

DXCat Label: Toxic Shock Syndrome

Etiology:

Idiopathic

### Stage Description

2.01	Toxic shock syndrome
2.02	with hepatitis
3.01	with renal failure
3.02	with encephalopathy
3.03	with respiratory failure
3.04	with shock
3.05	with coma
4.00	with death

### References:

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Wessels MR. Streptococcal and enterococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:885-892.

## Clinical Criteria with Description

DXCat Number: GYN32

DXCat Label: Uterine Infection

Etiology:

Infection

### Stage Description

1.01	Endometritis or myometritis
2.01	with perforation of the uterus
2.02	with peritonitis
3.01	with disseminated intravascular coagulation
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Holmes KK. Pelvic inflammatory disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:812-817.

Mackay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

## Clinical Criteria with Description

DXCat Number: GYN33

DXCat Label: Uterovaginal Prolapse

Etiology:

Degenerative; Trauma

### Stage Description

1.01	Relaxation of the vagina
1.02	First grade prolapse of the uterus
1.03	Second grade prolapse of the uterus
2.01	Prolapse of the uterus with rectocele or cystocele
2.02	Prolapse of the uterus with enterocele
2.03	Third grade prolapse of the uterus
2.04	Prolapse of the uterus with ulceration of the cervix
2.05	Prolapse of the uterus with procidentia

### References:

American College of Obstetricians and Gynecologists. Pelvic organ prolapse. ACOG Technical Bulletin 214. Washington, DC: ACOG 1995.

Burnett LS. Relaxations, malpositions, fistulas, and incontinence. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:456-458, 461.

Kistner RW. Gynecology: Principles and Practice. 4th ed. Chicago, IL: Year Book Medical Publishers. 1986:184-188.

MacKay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

Wentz AC. Abnormal uterine bleeding. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:378-396.

## Clinical Criteria with Description

DXCat Number: GYN34

DXCat Label: Vulvovaginitis

Etiology:

Infection

Stage	Description
1.01	Vulvovaginitis
1.02	Symptomatic vulvovaginitis
2.01	with urinary retention
2.02	with urinary tract infection
2.03	with pyelonephritis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Holmes KK, Handsfield HH. Sexually transmitted diseases: overview and clinical approach. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:801-812.

Jones III HW. Benign disease of the vulva and vagina. In: Jones III HW, Wentz AC, Burnett LS, eds. Novak's Textbook of Gynecology. 11th ed. Baltimore, MD: Williams & Wilkins; 1988:570-598.

Mackay HT. Gynecology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:691-724.

## Clinical Criteria with Description

DXCat Number: GYN80

Etiology:

DXCat Label: Neoplasm, Benign: Other Female Reproductive System

Neoplasm

Stage	Description
1.01	Benign neoplasm of female reproductive sites

### References:

## Clinical Criteria with Description

DXCat Number: GYN81

Etiology:

DXCat Label: Neoplasm, Malignant: Other Female Genitalia

Neoplasm

### Stage Description

0.00	History of other malignant neoplasm of female genitalia
1.01	Primary malignant neoplasm of other uterine site or adnexa
2.01	with lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: GYN82

Etiology:

DXCat Label: Other Breast Disorders

Stage	Description
1.01	Galactocele, mastodynia, lump or mass in breast

References:

## Clinical Criteria with Description

DXCat Number: GYN83

Etiology:

DXCat Label: Other Disorders of Female Genital System

Stage	Description
1.01	Cervicitis, ovarian cyst, uterine malposition, polyp, menstrual irregularities, infertility
2.01	Female genital fistula, broad ligament laceration syndrome, pelvic peritoneal adhesions, prolapse or torsion of ovary, anomalies of ovaries, Fallopian tubes, broad ligament or adnexa

References:

## Clinical Criteria with Description

DXCat Number: HEM01

DXCat Label: Agranulocytosis

Etiology:

Idiopathic; Toxicologic

### Stage Description

1.01	Neutropenia
1.02	Moderate neutropenia
2.01	Severe neutropenia
2.02	with oral or anal ulcerations
2.03	with thrombocytopenia
3.01	with meningitis or endocarditis
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

- Baehner RL. Neutropenia. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:587-591.
- Dinauer MC. The phagocytic system and disorders of granulopoiesis and granulocyte function. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:889-967.
- Holland SM, Gallin JI. Disorders of granulocytes and monocytes. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:351-359.
- Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.
- Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.
- Sharis PJ, Cannon CP, Loscalzo J. The antiplatelet effects of ticlopidine and clopidogrel. Annals of Internal Medicine. 1998;129(5):394-405.
- Viscoli C, Castagnola E. Planned progressive antimicrobial therapy in neutropenic patients. British Journal of Haematology. 1998;102(4):879-88.

## Clinical Criteria with Description

DXCat Number: HEM02

DXCat Label: Anemia: Aplastic, Acquired

Etiology:

Idiopathic; Toxicologic

### Stage Description

2.01	Early aplastic anemia
2.02	Advanced aplastic anemia
3.01	Severe aplastic anemia
3.02	with intracranial hemorrhage
3.03	with sepsis
4.00	with death

### References:

- Alter BP, Young NS. The bone marrow failure syndromes. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:237-335.
- Castro-Malaspina H, O'Reilly RJ. Aplastic anemia and myelodysplasia. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:672-679.
- Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.
- Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.
- Marsh JC, Gordon-Smith EC. Treatment options in severe aplastic anaemia. Lancet. 1998;351(9119):1830-1.
- Pizzo PA. The pancytopenias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1412-1417.
- Young NS, Maciejewski J. The pathophysiology of acquired aplastic anemia. N Engl J Med. 1997;336(19):1365-72.

## Clinical Criteria with Description

DXCat Number: HEM03

Etiology:

DXCat Label: Anemia: Folic Acid Deficiency

Nutritional

### Stage Description

1.01	Anemia secondary to folic acid deficiency
2.01	with moderate anemia
3.01	with congestive heart failure
3.02	with shock
4.00	with death

### References:

Hillman RS. Anemia. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:334-339.

Hoffbrand V, Provan D. ABC of clinical haematology. Macrocytic anaemias. BMJ. 1997;314(7078):430-3.

Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Schwartz, E. Megaloblastic anemias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1384-1387.

Stern SC, Macdonald D, Foadi M. Management of megaloblastic anaemia. Lancet. 1997;349(9045):135-6.

Whitehead VM, Rosenblatt DS, Cooper BA. Megaloblastic anemia. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:385-422.

## Clinical Criteria with Description

DXCat Number: HEM04

DXCat Label: Anemia: Hemolytic

Etiology:

Genetic (or hereditary); Toxicologic; Trauma

Stage	Description
2.01	Hemolytic anemia
2.02	Moderate anemia
2.03	with gallstones
2.04	Hemolytic crisis
3.01	with aplastic crisis
3.02	with pulmonary embolism
3.03	with congestive heart failure
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

- Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthuss JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.
- Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.
- Rosse W, Bunn HF. Hemolytic anemias and acute blood loss. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:659-672.
- Segal GB. Hemolytic anemias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1390-1410.
- Wonke B. Bone disease in beta-thalassaemia major. British Journal of Haematology. 1998;103(4):897-901.

## Clinical Criteria with Description

DXCat Number: HEM05

DXCat Label: Anemia: Iron Deficiency

Etiology:

Nutritional

Stage	Description
1.01	Iron-deficiency anemia
2.01	with moderate anemia
2.02	with severe anemia
3.01	with congestive heart failure
4.00	with death

### References:

- Andrews NC, Bridges KR. Disorders of iron metabolism and sideroblastic anemia. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:423-461.
- Frewin R, Henson A, Provan D. ABC of clinical haematology. Iron deficiency anaemia BMJ. 1997;314(7077):360-3.
- Hillman RS. Iron-deficiency and other hypoproliferative anemias. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:638-645.
- Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.
- Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.
- Schwartz, E. Iron deficiency anemia. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1387-1389.

## Clinical Criteria with Description

DXCat Number: HEM06

DXCat Label: Anemia: Sickle Cell

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Sickle cell trait
1.02	Sickle cell trait with hematuria or hyposthenuria
2.01	Sickle beta+ thalassemia
2.02	Hemoglobin SC disease
2.03	Sickle cell anemia or sickle beta thalassemia
2.04	with skin ulcers or vitreous hemorrhage
2.05	with priapism
2.06	with retinal detachment
2.07	with hepatitis or choledocholithiasis or cholelithiasis
2.08	with painful crisis
2.09	with papillary necrosis
2.10	with bacteremia
2.11	with bacterial pneumonia
2.12	with osteomyelitis
3.01	with aplastic crisis
3.02	acute chest syndrome
3.03	with renal failure

## Clinical Criteria with Description

DXCat Number: HEM06

DXCat Label: Anemia: Sickle Cell

Etiology:

Genetic (or hereditary)

Stage	Description
3.04	with congestive heart failure
3.05	with cerebrovascular accidents
3.06	with sepsis
3.07	with respiratory failure
3.08	with shock
4.00	with death

### References:

Beutler E. Disorders of hemoglobin. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:645-653.

Bunn HF. Pathogenesis and treatment of sickle cell disease. N Engl J Med. 1997;337(11):762-9.

Davies SC, Oni L. Management of patients with sickle cell disease. BMJ. 1997;315(7109):656-60.

Dover GJ, Platt OS. Sickle cell disease. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:762-809.

Frewin R, Henson A, Provan D. ABC of clinical haematology. Haematological emergencies. BMJ. 1997;314(7090):1333-6.

Honig GR. Hemoglobin disorders. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1396-1405.

Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Serjeant GR. Sickle-cell disease. Lancet. 1997;350(9079):725-30.

## Clinical Criteria with Description

DXCat Number: HEM07

DXCat Label: Anemia: Thalassemia

Etiology:

Genetic (or hereditary)

### Stage Description

1.01	Alpha thalassemia trait
1.02	Beta thalassemia trait or thalassemia minor
2.01	Hemoglobin H disease (alpha thalassemia intermedia)
2.02	Beta thalassemia intermedia
3.01	Beta thalassemia major or Cooley's anemia
3.02	with congestive heart failure
3.03	Homozygous alpha thalassemia with hydrops fetalis
4.00	with death

### References:

Beutler E. Disorders of hemoglobin. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:645-653.

Honig GR. Hemoglobin disorders. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1396-1405.

Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Orkin SH, Nathan DG. The thalassaemias. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia: WB Saunders; 1998:811-886.

Weatherall DJ. ABC of clinical haematology. The hereditary anaemias. BMJ. 1997;314(7079):492-6.

Weatherall DJ. The thalassaemias. BMJ. 1997;314(7095):1675-8.

## Clinical Criteria with Description

DXCat Number: HEM08

DXCat Label: Anemia: Vitamin B-12 Deficiency

Etiology:

Nutritional

### Stage Description

1.01	Anemia secondary to vitamin B12 deficiency
2.01	with neuropathy
2.02	with cardiomegaly
3.01	with megaloblastic madness (dementia)
3.02	with congestive heart failure
3.03	with shock
4.00	with death

### References:

Hillman RS. Anemia. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:334-339.

Hoffbrand V, Provan D. ABC of clinical haematology. Macrocytic anaemias BMJ. 1997;314(7078):430-3.

Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Schwartz, E. Megaloblastic Anemias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1384-1387.

Toh BH, van Driel IR, Gleeson PA. Pernicious anemia. N Engl J Med. 1997;337(20):1441-8.

Whitehead VM, Rosenblatt DS, Cooper BA. Megaloblastic anemia. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:385-422.

## Clinical Criteria with Description

DXCat Number: HEM09

DXCat Label: Glucose 6-Phosphate Dehydrogenase Deficiency

Etiology:

Congenital; Genetic (or hereditary)

### Stage Description

1.01	Glucose 6-phosphate dehydrogenase deficiency asymptomatic carrier or homozygotic female
1.02	with hemolytic anemia
2.01	with moderate anemia
3.01	with severe anemia
3.02	with congestive heart failure
3.03	with shock
4.00	with death

### References:

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Luzzatto L. Glucose-6-phosphate dehydrogenase deficiency and hemolytic anemia. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:704-726.

Mason PJ. New insights into G6PD deficiency. British Journal of Haematology. 1996;94(4):585-91.

Rosse W, Bunn HF. Hemolytic anemias and acute blood loss. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:659-672.

Segel GB. Enzymatic defects. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1405-1408.

Weatherall DJ. ABC of clinical haematology. The hereditary anaemias. BMJ. 1997;314(7079):492-6.

## Clinical Criteria with Description

DXCat Number: HEM10

DXCat Label: Graft versus Host reaction

Etiology:

Immune

### Stage Description

0.00	Graft vs. host reaction
1.01	Acute reaction Grade I-IV
1.02	with hepatitis
1.03	with enteritis
2.01	Lichen planus like or sclerodermoid reaction
2.02	with polymyositis
2.03	with Sjogren's syndrome
2.04	with biliary cirrhosis
3.01	with respiratory failure
3.02	with shock
4.00	with death

### References:

Norton J, Sloane JP. A prospective study of cellular and immunological changes in skin of allogenic bone marrow recipients - relationship to clinical and histological features of acute graft versus host disease. *Am J Clin Pathol.* 1994;(101):597-602.

Rowell NR, Goodfield MJD. The 'connective tissue diseases'. In: Champion RH, Burton JL, Burns DA, Breathnach SM. *Rook/Wilkinson/Ebling Textbook of Dermatology.* 6th ed. Oxford: Blackwell Science Ltd.; 1998:2516-2518.

## Clinical Criteria with Description

DXCat Number: HEM11

Etiology:

DXCat Label: Hemolytic Disease of the Newborn

Congenital

### Stage Description

1.01	Hemolytic disease of the newborn secondary to rhesus isoimmunization or ABO incompatibility or minor blood group incompatibility
2.01	Severe hemolytic disease of the newborn secondary to rhesus isoimmunization or ABO incompatibility or minor blood group incompatibility
3.01	with kernicterus
3.02	with hydrops fetalis
4.00	with death

### References:

- Bowman JM. Immune hemolytic disease. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:53-78.
- Crombleholme WR. Obstetrics. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:724-748.
- Forouzan I. Hydrops fetalis: recent advances. Obstetrical & Gynecological Survey. 1997;52(2):130-8.
- Jones LJ. Hemolytic disease of the newborn. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:500-504.
- Liley HG. Rescue in inner space: management of Rh hemolytic disease. Journal of Pediatrics. 1997;131(3):340-2.

## Clinical Criteria with Description

DXCat Number: HEM12

DXCat Label: Hemophilia A or B

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Mild asymptomatic, hemophilia A or B
1.02	Moderate hemophilia A or B
2.01	Severe hemophilia A or B
2.02	with intramuscular hematoma
2.03	with hemarthrosis
2.04	with ankylosis of the elbow or knee joints
2.05	with upper airway obstruction
3.01	with hemorrhage into the central nervous system or the heart of pericardium or thorax
3.02	with respiratory failure
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: HEM12

DXCat Label: Hemophilia A or B

Etiology:

Genetic (or hereditary)

### Stage Description

### References:

Bossi P, Cabane J, Ninet J, et al. Acquired hemophilia due to factor VIII inhibitors in 34 patients. *American Journal of Medicine*. 1998;105(5):400-8.

Corrigan JJ. Phase I disorders: the hemophilias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:1424-1428.

Giangrande PL. Hepatitis in haemophilia. *British Journal of Haematology*. 1998;103(1):1-9.

Handin RI. Disorders of coagulation and thrombosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:736-744.

Lane PA, Nuss R, Ambruso DR. Hematologic disorders. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:732-780.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:479-534.

Montgomery RR, Gill JC, Scott JP. Hemophilia and von Willebrand disease. In: Nathan DG and Orkin SH, eds. *Nathan and Oski's Hematology of Infancy and Childhood*. 5th ed. Philadelphia, PA: WB Saunders; 1998:1631-1659.

## Clinical Criteria with Description

DXCat Number: HEM13

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Lymphocytic Depletion Neoplasm

### Stage Description

0.00	History or remission of Hodgkin's disease with lymphocytic depletion
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region with involvement of adjacent extranodal tissue
1.03	Limited to one anatomic lymph node region and constitutional symptoms
1.04	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with Pneumocystis carinii pneumonia or Cryptococcus infection or opportunistic infections
3.07	with sepsis
3.08	with respiratory failure

## Clinical Criteria with Description

DXCat Number: HEM13

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Lymphocytic Depletion Neoplasm

Stage	Description
3.09	with shock
4.00	with death

### References:

Albano EA, et.al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

DeVita VT Jr. Hubbard SM. Hodgkin's disease. N Engl J Med. 1993;328(8):560-5.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

## Clinical Criteria with Description

DXCat Number: HEM14

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Lymphocytic Predominance

Neoplasm

### Stage Description

0.00	History or remission of Hodgkin's disease with lymphocytic depletion
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region with involvement of adjacent extranodal tissue
1.03	Limited to one anatomic lymph node region and constitutional symptoms
1.04	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure

## Clinical Criteria with Description

DXCat Number: HEM14

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Lymphocytic Predominance

Neoplasm

### Stage Description

3.09	with shock
4.00	with death

### References:

Albano EA, et.al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

DeVita VT Jr. Hubbard SM. Hodgkin's disease. N Engl J Med. 1993;328(8):560-5.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

## Clinical Criteria with Description

DXCat Number: HEM15

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Mixed Cellularity

Neoplasm

### Stage Description

0.00	History or remission of Hodgkin's disease with mixed cellularity
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region with involvement of adjacent extranodal tissue
1.03	Limited to one anatomic lymph node region and constitutional symptoms
1.04	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with Pneumocystis carinii pneumonia or cryptococcus infection or opportunistic infections
3.07	with sepsis
3.08	with respiratory failure

## Clinical Criteria with Description

DXCat Number: HEM15

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Mixed Cellularity

Neoplasm

Stage	Description
3.09	with shock
4.00	with death

### References:

Albano EA, et.al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

DeVita VT Jr. Hubbard SM. Hodgkin's disease. N Engl J Med. 1993;328(8):560-5.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

## Clinical Criteria with Description

DXCat Number: HEM16

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Nodular Sclerosis

Neoplasm

### Stage Description

0.00	History or remission of Hodgkin's disease with nodular sclerosis
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region with involvement of adjacent extranodal tissue
1.03	Limited to one anatomic lymph node region and constitutional symptoms
1.04	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with Pneumocystis carinii pneumonia or cryptococcus infection or opportunistic infections
3.07	with sepsis
3.08	with respiratory failure

## Clinical Criteria with Description

DXCat Number: HEM16

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Disease with Nodular Sclerosis

Neoplasm

Stage	Description
3.09	with shock
4.00	with death

### References:

Albano EA, et.al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

DeVita VT Jr. Hubbard SM. Hodgkin's disease. N Engl J Med. 1993;328(8):560-5.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

## Clinical Criteria with Description

DXCat Number: HEM17

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Lymphoma

Neoplasm

### Stage Description

0.00	History or remission of Hodgkin's disease
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region with involvement of adjacent extranodal tissue
1.03	Limited to one anatomic lymph node region and constitutional symptoms
1.04	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen with or without constitutional symptoms
3.02	On both sides of the diaphragm or spleen with extension to adjacent tissues with or without constitutional symptoms
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity with or without constitutional symptoms or involvement of adjacent tissues
3.04	with diffuse extranodal tissue involvement with or without constitutional symptoms
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure

## Clinical Criteria with Description

DXCat Number: HEM17

Etiology:

DXCat Label: Neoplasm, Malignant: Hodgkin's Lymphoma

Neoplasm

Stage	Description
3.09	with shock
4.00	with death

### References:

DeVita VT Jr, Hubbard SM. Hodgkin's disease. *N Engl J Med*. 1993;328(8):560-5.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. *BMJ*. 1997;314(7087):1103-6.

## Clinical Criteria with Description

DXCat Number: HEM18

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Acute Lymphocytic

Neoplasm

### Stage Description

0.00	History or remission of acute lymphoblastic leukemia
1.01	Acute lymphoblastic leukemia
1.02	with hyperdiploid states
2.01	with hyperuricemia or hypokalemia or hyperkalemia or hyperphosphatemia
2.02	with significant anemia
2.03	with significant thrombocytopenia
2.04	with leukopenia
2.05	with urinary tract infection or nephrolithiasis or pyoderma
2.06	with pneumonia
2.07	with Pneumocystis pneumonia or opportunistic infections
2.08	with severe thrombocytopenia
2.09	with acute bleeding
2.10	with severe neutropenia
3.01	with meningitis
3.02	with disseminated intravascular coagulation
3.03	with sepsis
3.04	with shock

## Clinical Criteria with Description

DXCat Number: HEM18

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Acute Lymphocytic

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et al. Neoplastic disease. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:781-803.

Burnett AK, Eden OB. The treatment of acute leukaemia. Lancet. 1997;349(9047):270-5.

Crist WM, Pui C. The leukemias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1452-1460.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Look AT. Oncogenic transcription factors in the human acute leukemias. Science. 1997;278(5340):1059-6.

Niemeyer CM, Sallan SE. Acute lymphoblastic leukemia. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:1245-1285.

Pui CH, Evans WE. Acute lymphoblastic leukemia. N Engl J Med. 1998;339(9):605-15.

## Clinical Criteria with Description

DXCat Number: HEM19

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Acute Nonlymphocytic

Neoplasm

### Stage Description

0.00	History or remission of acute nonlymphocytic leukemia
1.01	Acute or subacute nonlymphocytic leukemia or myeloid sarcoma
1.02	with monosomy 5 and 7 or abnormalities of 11q23
2.01	with hyperuricemia or hyperkalemia or hyperphosphatemia
2.02	with significant anemia
2.03	with significant thrombocytopenia
2.04	with leukopenia
2.05	with urinary tract infection or nephrolithiasis or pyoderma
2.06	with pneumonia
2.07	with Pneumocystis pneumonia or opportunistic infections
2.08	with severe thrombocytopenia
2.09	with acute bleeding
2.10	with severe neutropenia
3.01	with meningitis
3.02	with disseminated intravascular coagulation
3.03	with sepsis
3.04	with shock

## Clinical Criteria with Description

DXCat Number: HEM19

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Acute Nonlymphocytic

Neoplasm

Stage	Description
4.00	with death

### References:

Burnett AK, Eden OB. The treatment of acute leukaemia. *Lancet*. 1997;349(9047):270-5.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:479-534.

Look AT. Oncogenic transcription factors in the human acute leukemias. *Science*. 1997;278(5340):1059-6.

Streubel B, Sauerland C, Heil G, et al. Correlation of cytogenetic, molecular cytogenetic, and clinical findings in 59 patients with ANLL or MDS and abnormalities of the short arm of chromosome 12. *British Journal of Haematology*. 1998;100(3):521-33.

Wetzler M, Bloomfield CD. Acute and chronic myeloid leukemias. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998.

## Clinical Criteria with Description

DXCat Number: HEM20

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Chronic Lymphocytic

Neoplasm

### Stage Description

0.00	History or remission of chronic lymphocytic leukemia
1.01	Chronic lymphocytic leukemia
2.01	with adenopathy
2.02	with hypogammaglobulinemia
2.03	with pneumonia
2.04	with hepatosplenomegaly
2.05	with anemia
2.06	with thrombocytopenia
2.07	with large cell lymphoma or Richter's syndrome
3.01	with meningitis
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Mead GM. ABC of clinical haematology. Malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Rozman C, Montserrat E. Chronic lymphocytic leukemia. N Engl J Med. 1995;333(16):1052-7.

## Clinical Criteria with Description

DXCat Number: HEM21

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Chronic Myelogenous

Neoplasm

### Stage Description

0.00	History or remission of chronic myelocytic leukemia
1.01	Chronic myelogenous leukemia
2.01	with significant anemia
2.02	with significant thrombocytopenia
2.03	with significant leukocytosis
2.04	with blast crisis
2.05	with chloromas or hepatosplenomegaly
2.06	with severe thrombocytopenia
2.07	with acute bleeding
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: HEM21

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Chronic Myelogenous

Neoplasm

### Stage Description

### References:

Crist WM, Pui C. The leukemias. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1452-1460.

Dinulos JG, Hawkins DS, Clark BS, Francis JS. Spontaneous remission of congenital leukemia. Journal of Pediatrics. 1997;131(2):300-3.

Goldman J. ABC of clinical haematology. Chronic myeloid leukaemia. BMJ. 1997;314(7081):657-60.

Grier HE and Civin CI. "Myeloid Leukemias, Myelodysplasia, and Myeloproliferative Diseases in Children. In: Nathan DG and Orkin SH, eds. Nathan and Oski's Hematology of Infancy and Childhood. 5th ed. Philadelphia, PA: WB Saunders; 1998:1286-1321.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Tefferi A, Litzow MR, Noel P, Dewald GW. Chronic granulocytic leukemia: recent information on pathogenesis, diagnosis, and disease monitoring. Mayo Clinic Proceedings. 1997;72(5):445-52.

Wetzler M, Bloomfield CD. Acute and chronic myeloid leukemias. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:684-695.

## Clinical Criteria with Description

DXCat Number: HEM22

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Cutaneous T Cell (Mycosis Fungoides)

Neoplasm

### Stage Description

0.00	History of mycosis fungoides
1.01	T1 skin involvement
1.02	T2 skin involvement
1.03	T3 skin involvement
1.04	T4 skin involvement
2.01	N1 lymph node involvement
2.02	N2 lymph node involvement
2.03	N3 lymph node involvement
3.01	B1 blood involvement
3.02	M1 visceral organ involvement
4.00	with death

### References:

Mackie RM. Cutaneous lymphomas and lymphocytic infiltrates. In: Champion Rh, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd.; 1998:2375-2382.

Zachheim HS, Amin S, Kashani-Sabt M, McMillan A. Prognosis in cutaneous T-cell lymphoma by skin stage: long-term survival in 489 patients. J Am Acad Dermatol. 1999;(40/3):418-425.

## Clinical Criteria with Description

DXCat Number: HEM23

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Diffuse Large Cell

Neoplasm

### Stage Description

0.00	History or remission of diffuse large cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	Of two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM23

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Diffuse Large Cell

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM24

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Diffuse Mixed Small and Large Cell Neoplasm

### Stage Description

0.00	History or remission of diffuse mixed small and large cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	Of two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM24

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Diffuse Mixed Small and Large Cell Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM25

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Diffuse Small Cleaved Cell

Neoplasm

### Stage Description

0.00	History or remission of diffuse small cleaved cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	Of two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM25

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Diffuse Small Cleaved Cell

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM26

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Follicular Mixed Small Cleaved and Large Cell Neoplasm

### Stage Description

0.00	History or remission of follicular mixed small cleaved and large cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	Of two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM26

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Follicular Mixed Small Cleaved and Large Cell Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM27

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Follicular Predominantly Large Cell Neoplasm

### Stage Description

0.00	History or remission of follicular predominantly large cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	Of two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM27

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Follicular Predominantly Large Cell Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM28

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Follicular, Predominantly Small  
Cleaved Cell

Neoplasm

### Stage Description

0.00	History or remission of follicular predominantly small cleaved cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	Of two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM28

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Follicular, Predominantly Small  
Cleaved Cell

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM29

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Histiocytic Cell

Neoplasm

### Stage Description

0.00	History or remission of histiocytic cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	Of two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM29

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Histiocytic Cell

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

## Clinical Criteria with Description

DXCat Number: HEM30

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Large Cell Immunoblastic

Neoplasm

### Stage Description

0.00	History or remission of Large cell immunoblastic lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM30

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Large Cell Immunoblastic

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM31

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Lymphoblastic

Neoplasm

### Stage Description

0.00	History or remission of Lymphoblastic lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM31

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Lymphoblastic

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM32

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Small Lymphocytic Cell

Neoplasm

### Stage Description

0.00	History or remission of small lymphocytic cell lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM32

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Small Lymphocytic Cell

Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM33

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Small Noncleaved Cell or Burkitt's Neoplasm

### Stage Description

0.00	History or remission of small noncleaved cell or Burkitt's lymphoma
1.01	Limited to one anatomic lymph node region
1.02	Limited to one anatomic lymph node region and constitutional symptoms
1.03	Limited to one anatomic lymph node region and constitutional symptoms and involvement of adjacent extranodal tissue
2.01	On two anatomic lymph node regions on the same side of the diaphragm
2.02	Of two anatomic lymph node regions on the same side of the diaphragm and adjacent tissue involvement
2.03	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms
2.04	Of two anatomic lymph node regions on the same side of the diaphragm with constitutional symptoms and adjacent tissue involvement
3.01	On both sides of the diaphragm or involving the spleen
3.02	On both sides of the diaphragm or involving the spleen with extension to adjacent tissues
3.03	On both sides of the diaphragm or involving the spleen and further extension into the peritoneal cavity
3.04	with diffuse extranodal tissue involvement
3.05	with spinal cord compression
3.06	with opportunistic infections
3.07	with sepsis
3.08	with respiratory failure
3.09	with shock

## Clinical Criteria with Description

DXCat Number: HEM33

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphoma, Small Noncleaved Cell or Burkitt's Neoplasm

Stage	Description
4.00	with death

### References:

Albano EA, et. al. Neoplastic diseases/lymphomas. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:789-793.

Freedman AS, Nadler LM. Malignancies of lymphoid cells. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:695-712.

Hudson MM. Lymphoma/hodgkin's disease. In: Behrman RE, Lliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1459-1460.

Linker CA. Lymphomas. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:511-516.

Mead GM. ABC of clinical haematology. malignant lymphomas and chronic lymphocytic leukaemia. BMJ. 1997;314(7087):1103-6.

Sandlund JT. Downing JR. Crist WM. Non-hodgkin's lymphoma in childhood. N Engl J Med. 1996;334(19):1238-48.

## Clinical Criteria with Description

DXCat Number: HEM34

Etiology:

DXCat Label: Neoplasm, Malignant: Multiple Myeloma

Neoplasm

### Stage Description

0.00	History or remission of multiple myeloma
1.01	Multiple myeloma
2.01	with osteolytic lesions or anemia or pathologic fracture
2.02	with hyperuricemia or hypercalcemia
2.03	with amyloidosis of the lungs or liver or spleen
2.04	with nephrotic syndrome or renal amyloidosis or renal tubular acidosis
3.01	with amyloidosis of the heart
3.02	with congestive heart failure
3.03	with spinal cord compression
3.04	with renal failure
3.05	with shock
4.00	with death

### References:

Bataille R, Harousseau JL. Multiple myeloma. *N Engl J Med.* 1997;336(23):1657-64.

Croucher PI, Apperley JF. Bone disease in multiple myeloma. *British Journal of Haematology.* 1998;103(4):902-10.

Goodnight SH, Feinstein DI. Update in hematology. *Annals of Internal Medicine.* 1998;128(7):545-51.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:479-534.

Longo DL. Plasma cell disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:712-718.

Singer CR. ABC of clinical haematology. Multiple myeloma and related conditions. *BMJ.* 1997;314(7085):960-3.

## Clinical Criteria with Description

DXCat Number: HEM35

Etiology:

DXCat Label: Neoplasm, Malignant: Waldenstrom's Macroglobulinemia

Neoplasm

### Stage Description

1.01	Macroglobulinemia
2.01	with anemia
2.02	with coagulopathies
2.03	with severe anemia
2.04	with hyperviscosity syndrome
2.05	with coronary artery disease
3.01	with congestive heart failure
3.02	with cerebrovascular accidents
3.03	with shock
4.00	with death

### References:

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:479-534.

Longo DL. Plasma cell disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:712-718.

Patel TC, Moore SB, Pineda AA, Witzig TE. Role of plasmapheresis in thrombocytopenic purpura associated with Waldenstrom's macroglobulinemia. Mayo Clinic Proceedings. 1996;71(6):597-600.

## Clinical Criteria with Description

DXCat Number: HEM36

DXCat Label: Polycythemia Vera

Etiology:

Idiopathic

Stage	Description
1.01	Polycythemia vera
2.01	with peptic ulcer disease
2.02	with hyperuricemia
2.03	with gouty arthritis
2.04	with renal calculi
2.05	with myelofibrosis
2.06	with gastrointestinal bleeding
2.07	with deep vein thrombosis
2.08	with Budd-Chiari syndrome
3.01	with pulmonary embolism
3.02	with myocardial infarction
3.03	with congestive heart failure
3.04	with cerebral vascular accident
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: HEM36

DXCat Label: Polycythemia Vera

Etiology:

Idiopathic

### Stage Description

### References:

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Best PJ, Daoud MS, Pittelkow MR, Pettitt RM. Hydroxyurea-induced leg ulceration in 14 patients. *Annals of Internal Medicine*. 1998;128(1):29-32.

Linker CA. Blood. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:479-534.

Spivak JL. Polycythemia vera and other myeloproliferative diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*, 14th ed. New York, NY: McGraw-Hill; 1998:679-684.

Taylor PC, Dolan G, Ng JP, Paul B, Collin R, Reilly JT. Efficacy of recombinant interferon-alpha (rIFN-alpha) in polycythaemia vera: a study of 17 patients and an analysis of published data. *British Journal of Haematology*. 1996;92(1):55-9.

Tefferi A. The Philadelphia chromosome negative chronic myeloproliferative disorders: a practical overview. *Mayo Clinic Proceedings*. 1998;73(12):1177-84.

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## Clinical Criteria with Description

DXCat Number: HEM80

Etiology:

DXCat Label: Anemia: Other

Stage	Description
1.01	Other nutritional, hemorrhagic, sideroblastic anemias
2.01	moderate anemia
3.01	with CHF
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: HEM81

Etiology:

DXCat Label: Neoplasm, Benign: Lymphatic or Hematopoietic

Neoplasm

Stage	Description
1.01	Benign neoplasm of lymphatic or hematopoietic system

### References:

## Clinical Criteria with Description

DXCat Number: HEM82

Etiology:

DXCat Label: Neoplasm, Malignant: Leukemia, Other Types

Neoplasm

### Stage Description

Stage	Description
0.00	History or remission of malignant histiocytosis, Letterer-Siwe Disease, monocytic and other types of leukemia or immunoproliferative malignancies
1.01	Malignant histiocytosis, Letterer-Siwe Disease, monocytic and other types of leukemia or immunoproliferative malignancies

### References:

## Clinical Criteria with Description

DXCat Number: HEM83

Etiology:

DXCat Label: Neoplasm, Malignant: Lymphatic and Hematopoietic, Other Types

Neoplasm

Stage	Description
1.01	Malignant neoplasm of spleen or thymus or other lymph node malignancy
2.01	with lymph node metastases
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: HEM84

Etiology:

DXCat Label: Neoplasm, Malignant: Mastocytosis

Neoplasm

### Stage Description

0.00	History or remission of malignant mastocytosis
1.01	Malignant mastocytosis limited to one anatomic lymph node region
1.02	with constitutional symptoms
1.03	with constitutional symptoms and involvement of adjacent extranodal tissue
2.01	of two anatomic lymph node regions
3.01	on both sides of the diaphragm or involving the spleen

### References:

## Clinical Criteria with Description

DXCat Number: HEM85

Etiology:

DXCat Label: Other Disorders of Blood and Blood-Forming Organs

Stage	Description
1.01	Coagulation disorders, purpuras, thrombocytopenias, and other hemorrhagic conditions

References:

## Clinical Criteria with Description

DXCat Number: HEM86

Etiology:

DXCat Label: Other Lymphatic Disorders

Stage	Description
1.01	Lymphadenitis, lymphangitis, lymphedema, noninfectious lymphatic disorders

References:

## Clinical Criteria with Description

DXCat Number: HEP01

DXCat Label: Cholecystitis and Cholelithiasis

Etiology:

Idiopathic; Metabolic

### Stage Description

1.01	Chronic cholecystitis or cholelithiasis
2.01	Chronic cholecystitis with choledocholithiasis
2.02	Acute cholecystitis
2.03	Acute cholecystitis with choledocholithiasis
2.04	Empyema of gallbladder
2.05	Cholecystitis with gangrene of gallbladder
2.06	Cholecystitis with localized perforation of gallbladder
2.07	Cholecystitis with gallstone ileus or with cholecystoduodenal or cholecystoenteric fistula
2.08	with ascending cholangiitis
2.09	with bile peritonitis
3.01	Cholecystitis with acute Pancreatitis
3.02	with sepsis
3.03	with shock
4.00	Cholecystitis with death

## Clinical Criteria with Description

DXCat Number: HEP01

DXCat Label: Cholecystitis and Cholelithiasis

Etiology:

Idiopathic; Metabolic

### Stage Description

### References:

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Fenster LF, Lonborg R, Thirlby RC, Traverso LW. What symptoms does cholecystectomy cure? Insights from an outcomes measurement project and review of the literature. *American Journal of Surgery*. 1995;169(5):533-8.

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Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:628-666.

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Greenberger NJ, Toskes PP, Isselbacher KJ. Acute and chronic pancreatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1741-1753.

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Russell RC. General surgery: biliary surgery. *BMJ*. 1993;307(6914):1266-9.

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## Clinical Criteria with Description

DXCat Number: HEP02

DXCat Label: Cirrhosis of the Liver

Etiology:

Idiopathic; Toxicologic

### Stage Description

2.01	Cirrhosis of liver
2.02	with coagulopathies
2.03	with ascites or hypoproteinemia
2.04	with esophageal variceal bleeding
2.05	with bacterial peritonitis
3.01	with renal failure
3.02	with sepsis
3.03	with respiratory failure
3.04	with hepatic encephalopathy
3.05	with shock
4.00	with death

### References:

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Friedman SL. Seminars in medicine of the Beth Israel Hospital, Boston. The cellular basis of hepatic fibrosis. Mechanisms and treatment strategies. N Engl J Med. 1993;328(25):1828-35.

Podolsky DK, Isselbacher KJ. Cirrhosis and alcoholic liver disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1704-1710.

## Clinical Criteria with Description

DXCat Number: HEP03

DXCat Label: Disorders of Bilirubin Excretion

Etiology:

Congenital; Genetic (or hereditary)

### Stage Description

1.01	Familial recurrent cholestasis or cholestasis of pregnancy
1.02	Gilbert's syndrome
1.03	Dubin-Johnson
1.04	Rotor's
2.01	Type II Crigler-Najjar
2.02	Type I Crigler-Najjar
3.01	with kernicterus
3.02	with hepatic coma
3.03	with shock
4.00	Disorders of biliary excretion with death

### References:

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Isselbacher KJ. Bilirubin metabolism and hyperbilirubinemia. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1672-1677.

Paulusma CC, Bosma PJ, Zaman GJ. Congenital jaundice in rats with a mutation in a multidrug resistance-associated protein gene. Science. 1996;271(5252):1126-8.

## Clinical Criteria with Description

DXCat Number: HEP04

DXCat Label: Hepatitis A

Etiology:

Infection, Viral

Stage	Description
1.01	Acute viral hepatitis A
1.02	Chronic persistent hepatitis
2.01	with dehydration
3.01	with hypotension
3.02	with shock
4.00	with death

### References:

Dienstag JL, Isselbacher K. Acute viral hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1677-1692.

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Noskin GA. Prevention, diagnosis, and management of viral hepatitis. A guide for primary care physicians. Archives of Family Medicine. 1995;4(11):923-34.

Tepper MI, Gully PR. Viral hepatitis: know your D, E, F and Gs. CMAJ. 1997;156(12):1735-8.

## Clinical Criteria with Description

DXCat Number: HEP05

DXCat Label: Hepatitis B

Etiology:

Infection, Viral

### Stage Description

1.01	Carrier of viral hepatitis B
1.02	Acute viral hepatitis B
1.03	Chronic persistent hepatitis
1.04	Chronic active hepatitis
2.01	with cirrhosis
2.02	with bleeding
2.03	with hepatoma
3.01	with renal failure
3.02	with hepatic coma
4.00	with death

### References:

- Dienstag JL, Isselbacher K. Acute viral hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1677-1692.
- Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.
- Noskin GA. Prevention, diagnosis, and management of viral hepatitis. A guide for primary care physicians. Archives of Family Medicine. 1995;4(11):923-34.
- Tepper MI, Gully PR. Viral hepatitis: know your D, E, F and Gs. CMAJ. 1997;156(12):1735-8.

## Clinical Criteria with Description

DXCat Number: HEP06

DXCat Label: Hepatitis C

Etiology:

Infection, Viral

Stage	Description
1.01	Acute viral hepatitis C
1.02	Chronic persistent hepatitis
1.03	Chronic active hepatitis
2.01	with cirrhosis
2.02	with bleeding
2.03	with hepatoma
3.01	with renal failure
3.02	with hepatic coma
4.00	with death

### References:

Dienstag JL, Isselbacher K. Acute viral hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1677-1692.

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Noskin GA. Prevention, diagnosis, and management of viral hepatitis. A guide for primary care physicians. Archives of Family Medicine. 1995;4(11):923-34.

Tepper MI, Gully PR. Viral hepatitis: know your D, E, F and Gs. CMAJ. 1997;156(12):1735-8.

## Clinical Criteria with Description

DXCat Number: HEP07

DXCat Label: Hepatitis D

Etiology:

Infection, Viral

### Stage Description

1.01	Acute viral hepatitis D
1.02	Chronic persistent hepatitis
1.03	Chronic active hepatitis
2.01	with cirrhosis
2.02	with bleeding
2.03	with hepatoma
3.01	with renal failure
3.02	with hepatic coma
4.00	with death

### References:

Dienstag JL, Isselbacher K. Acute viral hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1677-1692.

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:628-666.

Noskin GA. Prevention, diagnosis, and management of viral hepatitis. A guide for primary care physicians. *Archives of Family Medicine*. 1995;4(11):923-34.

Tepper MI, Gully PR. Viral hepatitis: know your D, E, F and Gs. *CMAJ*. 1997;156(12):1735-8.

## Clinical Criteria with Description

DXCat Number: HEP08

DXCat Label: Hepatitis E

Etiology:

Infection, Viral

Stage	Description
1.01	Acute viral hepatitis E
1.02	Chronic persistent hepatitis
1.03	Chronic active hepatitis
2.01	with dehydration
3.01	with hypotension
3.02	with shock
4.00	with death

### References:

Dienstag JL, Isselbacher K. Acute viral hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1677-1692.

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Noskin GA. Prevention, diagnosis, and management of viral hepatitis. A guide for primary care physicians. Archives of Family Medicine. 1995;4(11):923-34.

Tepper MI, Gully PR. Viral hepatitis: know your D, E, F and Gs. CMAJ. 1997;156(12):1735-8.

## Clinical Criteria with Description

DXCat Number: HEP09

DXCat Label: Hepatitis G

Etiology:

Infection, Viral

### Stage Description

1.01	Acute viral hepatitis G and other or unspecified hepatitis
1.02	Chronic persistent hepatitis
3.01	with hepatic coma

### References:

Dienstag JL, Isselbacher K. Acute viral hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1677-1692.

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:628-666.

Noskin GA. Prevention, diagnosis, and management of viral hepatitis. A guide for primary care physicians. *Archives of Family Medicine*. 1995;4(11):923-34.

Tepper MI, Gully PR. Viral hepatitis: know your D, E, F and Gs. *CMAJ*. 1997;156(12):1735-8.

## Clinical Criteria with Description

DXCat Number: HEP10

DXCat Label: Hepatitis, Chemical

Etiology:

Toxicologic

### Stage Description

1.01	Toxic chemical hepatitis
2.01	with peliosis hepatitis
2.02	with hepatic adenoma
2.03	with hepatic vein thrombosis
3.01	with coagulation defects
3.02	with renal failure
3.03	with hepatic coma
3.04	with shock
4.00	with death

### References:

Dienstag JL, Isselbacher KJ. Toxic and Drug-Induced Hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1692-1696.

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Kenna JG, Jones RM. The organ toxicity of inhaled anesthetics. Anesthesia & Analgesia. 1995;81(6 Suppl):S51-66.

McNair AN, Tibbs CJ, Williams R. Hepatology. BMJ. 1995;311(7016):1351-5.

## Clinical Criteria with Description

DXCat Number: HEP11

Etiology:

DXCat Label: Neoplasm, Malignant: Pancreas

Neoplasm

Stage	Description
0.00	Hx, Ca Pancreas
1.01	Localized
2.01	with extension beyond duodenum or bile ducts or stomach, no regional lymph nodes
3.01	with regional lymph nodes
3.02	with distant or liver mets
3.03	with shock
4.00	with death

### References:

Flanders TY, Foulkes WD. Pancreatic adenocarcinoma: epidemiology and genetics. *Journal of Medical Genetics*. 1996;33(11):889-98.

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:628-666.

Mayer RJ. Pancreatic Cancer. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:581-584.

Rosewicz S, Wiedenmann B. Pancreatic carcinoma. *Lancet*. 1997;349(9050):485-9.

## Clinical Criteria with Description

DXCat Number: HEP12

DXCat Label: Pancreatitis

Etiology:

Toxicologic

### Stage Description

1.01	Pancreatitis with pancreatic insufficiency
1.02	with pancreatic pseudocyst
1.03	Acute pancreatitis
1.04	Acute and Chronic pancreatitis
2.01	with ascites
2.02	Fulminant pancreatitis
2.03	Hemorrhagic or severe pancreatitis
3.01	with renal failure
3.02	with CHF
3.03	with sepsis
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Greenberger NJ, Toskes PP, Isselbacher KJ. Acute and chronic pancreatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1741-1753.

Mergener K, Baillie J. Acute pancreatitis. BMJ. 1998;316(7124):44-8.

Mergener K, Baillie J. Chronic pancreatitis. Lancet. 1997;350(9088):1379-85.

## Clinical Criteria with Description

DXCat Number: HEP13

DXCat Label: Wilson's Disease

Etiology:

Metabolic

### Stage Description

1.01	Wilson's disease or hepatolenticular degeneration
2.01	with hepatitis or splenomegaly
2.02	with CNS disorders
2.03	with hemolytic anemia
2.04	Chronic active hepatitis
2.05	with coagulation defects
3.01	with renal failure
3.02	with hepatic coma
3.03	with shock
4.00	with death

### References:

Friedman LS. Liver, biliary tract, & pancreas. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:628-666.

Jones EA, Weissenborn K. Neurology and the liver. Journal of Neurology, Neurosurgery & Psychiatry. 1997;63(3):279-93.

Scheinberg IH. Wilson's disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2166-2169.

Walshe JM. Treatment of Wilson's disease: the historical background. QJM. 1996;89(7):553-5.

## Clinical Criteria with Description

DXCat Number: HEP80

Etiology:

DXCat Label: Budd Chiari Syndrome

Stage	Description
2.01	Budd-Chiari syndrome

References:

## Clinical Criteria with Description

DXCat Number: HEP81

Etiology:

DXCat Label: Neoplasm, Benign: Hepatobiliary System

Neoplasm

Stage	Description
1.01	Benign neoplasm hepatobiliary system

### References:

## Clinical Criteria with Description

DXCat Number: HEP82

Etiology:

DXCat Label: Neoplasm, Malignant: Other Hepatobiliary Tract

Neoplasm

Stage	Description
0.00	History of liver malignancy
1.01	Primary malignant neoplasm of liver, gallbladder, hepatic or biliary ducts
2.01	with abdominal or peritoneal lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: HEP83

Etiology:

DXCat Label: Other Hepatobiliary and Pancreatic Disorders

Stage	Description
1.01	Chronic passive liver congestion or sequelae of chronic liver disease, cholesterolosis, pancreatic cyst
2.01	Hepatic infarction, gallbladder obstruction or fistula
3.01	Hepatic coma, hepatorenal syndrome

### References:

## Clinical Criteria with Description

DXCat Number: HEP84

Etiology:

DXCat Label: Other Hepatobiliary Infections

Stage	Description
1.01	Chronic hepatitis or other gallbladder disease
2.01	Liver abscess, acute necrosis, portal pyemia, or portal hypertension

References:

## Clinical Criteria with Description

DXCat Number: IMM01

DXCat Label: Human Immunodeficiency Virus Type I (HIV) Infection

Etiology:

Infection, Viral

Stage	Description
1.01	Human immunodeficiency virus infection, Type I
1.02	with significant immunosuppression
2.01	Presumptive Acquired Immune Deficiency Syndrome
2.02	AIDS with low CD4 cell count
2.03	AIDS defining diagnosis
3.01	with renal failure
3.02	with sepsis
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: IMM01

DXCat Label: Human Immunodeficiency Virus Type I (HIV) Infection

Etiology:

Infection, Viral

### Stage Description

### References:

- Anonymous. Guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents. *Annals of Internal Medicine*. 1998;128(12):1079-1100.
- Centers for Disease Control and Prevention. CDC Surveillance Summaries: AIDS-Defining Opportunistic Illnesses: 1992–1997, April 16, 1999. *MMWR* 1999;48(No. SS-2).
- Fauci AS, Lane HC. Human Immunodeficiency Virus (HIV) Disease: AIDS and Related Disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1791-1856.
- Gazzard B, Moyle G. 1998 revision to the British HIV Association guidelines for antiretroviral treatment of HIV seropositive individuals. BHIVA Guidelines Writing Committee. *Lancet*. 1998;352(9124):314-6.
- Havli DV, Barnes PF. Tuberculosis in patients with human immunodeficiency virus infection. *N Engl J Med*. 1999;340(5):367-73.
- Katz MH, Hollander H. HIV Infection. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1204-1231.
- Mellors J, Rinaldo C, Gupta P, White RM, Todd JA, Kingsley LA. Prognosis in HIV infection predicted by the quantity of virus in plasma. *Science*. 1996;373:123-126.
- Montaner JS, Hogg R, Raboud J, Harrigan R, O'Shaughnessy M. Antiretroviral treatment in 1998. *Lancet*. 1998;352(9144):1919-22.
- O'Brien W, Pomerantz RJ. AIDS and other diseases due to HIV infection. In: Neal Nathanson, ed. *Viral Pathogenesis*. New York, NY: Raven Press; 1997:813-837.

## Clinical Criteria with Description

DXCat Number: IMM02

DXCat Label: Urticaria

Etiology:

Idiopathic; Immune

Stage	Description
1.01	Localized acute urticaria
1.02	Localized chronic urticaria
2.01	Generalized chronic urticaria
2.02	Generalized acute urticaria
3.01	with anaphylactic shock
4.00	with death

### References:

Black AK, Champion RH. Urticaria. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling. Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd., 1998:2113-2139.

Davis MDP, Daoud MS, Kirby B, Gibson LE, Rogers RS. Clinicopathologic correlation of hypocomplementemic and normocomplementemic urticarial vasculitis. J Am Acad Dermatol. 1998, 38(6): 899-905.

## Clinical Criteria with Description

DXCat Number: IMM80

Etiology:

DXCat Label: Other Immunodeficient Disorders

Stage	Description
1.01	Other immunodeficient disorders

References:

## Clinical Criteria with Description

DXCat Number: INF01

DXCat Label: Aspergillosis

Etiology:

Infection

### Stage Description

1.01	Primary localized cutaneous aspergillosis
2.01	with keratitis
2.02	with endophthalmitis
2.03	with orbital cellulitis
2.04	Aspergilloma or 'fungus ball'
2.05	Allergic bronchial aspergillosis
3.01	with endocarditis
3.02	with meningitis
3.03	with sepsis
3.04	with shock
4.00	with death

### References:

- Bennett JE. Aspergillosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1156-1158.
- Clancy CJ, Nguyen MH. Acute community-acquired pneumonia due to Aspergillus in presumably immunocompetent hosts: clues for recognition of a rare but fatal disease. Chest. 1998;114(2):629-34.
- Hamill RJ. Infectious diseases: mycotic. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1388-1400.
- Saraceno JL, Phelps DT, Ferro TJ, Futerfas R, Schwartz DB. Chronic necrotizing pulmonary aspergillosis: approach to management. Chest. 1997;112(2):541-8.

## Clinical Criteria with Description

DXCat Number: INF02

DXCat Label: Botulism

Etiology:

Infection, Bacterial

### Stage Description

1.01	Botulism
2.01	with generalized muscle weakness
2.02	with bladder involvement
2.03	with respiratory musculature involvement
2.04	with aspiration pneumonia
3.01	with respiratory failure
3.02	with shock
4.00	Botulism and death

### References:

- Abrutyn E. Botulism. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:904-906.
- Anonymous. From the Centers for Disease Control and Prevention. Foodborne Diseases Active Surveillance Network, 1996. JAMA. 1997;277(17):1344-1345.
- Butterton JR, Calderwood SB. Acute infectious diarrheal diseases and bacterial food poisoning. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- Chambers HF. Botulism. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1277-1288.
- Shapiro RL, Hatheway C, Becher J, Swerdlow DL. Botulism surveillance and emergency response. A public health strategy for a global challenge. JAMA. 1997;278(5):433-5.
- Simpson LL. Botulinum toxin: a deadly poison sheds its negative image. Annals of Internal Medicine. 1996;125(7):616-7.

## Clinical Criteria with Description

DXCat Number: INF03

DXCat Label: Candida (Monilial) Infections

Etiology:

Infection

### Stage Description

1.01	Cutaneous or oral or vaginal candidiasis
2.01	Candidiasis of gastrointestinal or lower urinary or upper respiratory tract
2.02	Chronic candidiasis
2.03	Candida endophthalmitis or pyelonephritis or arthritis or osteomyelitis
2.04	Candida fungemia
3.01	with renal failure
3.02	with endocarditis
3.03	with meningitis
3.04	with sepsis
3.05	with shock
4.00	with death

### References:

Bennett JE. Candidiasis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1154-1156.

Hamill RJ. Infectious diseases: mycotic. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1388-1400.

Hay RJ, Moore M. Mycology. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd., 1998:1335-1350.

Sobel JD, Faro S, Force RW. Vulvovaginal candidiasis: epidemiologic, diagnostic, and therapeutic considerations. American Journal of Obstetrics & Gynecology. 1998;178(2):203-11.

Sobel JD. Vaginitis. N Engl J Med. 1997;337(26):1896-903.

## Clinical Criteria with Description

DXCat Number: INF04

DXCat Label: Chlamydial Infection Except Trachoma or Pneumonia

Etiology:

Infection

### Stage Description

1.01	Chlamydial conjunctivitis
1.02	Chlamydial proctitis
1.03	Chlamydial urethritis
1.04	Chlamydial cervicitis
2.01	with lymphogranuloma venereum
2.02	Chlamydial infection with pelvic inflammatory disease
2.03	Chlamydial interstitial pneumonia
3.01	with respiratory failure
3.02	with shock
4.00	with death

### References:

Chambers HF. Infectious diseases: bacterial & chlamydial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. In: Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange, 1998:1267-1304.

Hammerschlag MR. Chlamydia. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:827-831.

Horner PJ, Crowley T, Leece J, et al. Chlamydia trachomatis detection and the menstrual cycle. Lancet. 351(9099):341-2, 1998 Jan 31.

Opaneye AA. Screening for chlamydia trachomatis. screening for and treatment of chlamydial infection demand commitment. BMJ. 317(7159):682, 1998 Sep 5.

Stamm WE. Chlamydial infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1055-1065.

## Clinical Criteria with Description

DXCat Number: INF05

DXCat Label: Clostridial Wound Infection

Etiology:

Infection, Bacterial

Stage	Description
1.01	Clostridium wound infection
2.01	with cellulitis
2.02	with hemolysis
2.03	with myonecrosis or gas gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Chambers HF. Infectious diseases: bacterial & chlamydial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. In: Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1267-1304.

Kasper DL, Zaleznik DF. Gas gangrene, antibiotic-associated colitis, and other clostridial infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL ets. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:906-910.

Thalhammer F, Hollenstein U, Janata K. A coincidence of disastrous accidents: crohn's disease, agranulocytosis, and clostridium septicum infection. Journal of Trauma. 1997;43(3):556-7.

Valentine EG. Nontraumatic gas gangrene. Annals of Emergency Medicine. 1997;30(1):109-11.

## Clinical Criteria with Description

DXCat Number: INF06

DXCat Label: Coccidioidomycosis

Etiology:

Infection

### Stage Description

1.01	Coccidioidomycosis of the respiratory tract
2.01	Cutaneous coccidioidomycosis or coccidioidomycosis with lymphadenopathy
2.02	with pleural effusion
2.03	with pulmonary cavitation
2.04	with osteomyelitis or arthritis
2.05	with hepatitis or splenic involvement
2.06	Renal coccidioidomycosis
3.01	with meningitis
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Anonymous. From the Centers for Disease Control and Prevention. Coccidioidomycosis--Arizona, 1990-1995. JAMA. 1997;277(2):104-5.

Bennett JE. Coccidioidomycosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1151-1152.

Hamill RJ. Infectious diseases: mycotic. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange, 1998:1388-1400.

Stevens DA. Coccidioidomycosis. N Engl J Med. 332(16):1077-82, 1995 Apr 20.

## Clinical Criteria with Description

DXCat Number: INF07

DXCat Label: Coxsackie and ECHO Infections

Etiology:

Infection, Viral

### Stage Description

1.01	Exanthems caused by Coxsackie or ECHO viruses
1.02	Herpangina caused by Coxsackie viruses
1.03	Lymphonodular pharyngitis caused by Coxsackie viruses
1.04	Hand-Foot-and-Mouth disease caused by Coxsackie viruses
1.05	Epidemic pleurodynia or Bornholm disease
1.06	ECHO virus gastroenteritis
2.01	Coxsackie or ECHO virus pneumonia
2.02	Coxsackie or ECHO virus paralysis
2.03	Pericarditis
3.01	Myocarditis caused by Coxsackie or ECHO viruses
3.02	Aseptic meningitis caused by Coxsackie or ECHO viruses
3.03	Coxsackie or ECHO viruses myocarditis with congestive heart failure
3.04	Respiratory failure caused by Coxsackie or ECHO viruses
3.05	Shock caused by Coxsackie or ECHO viruses
4.00	ECHO or Coxsackie virus infections with death

## Clinical Criteria with Description

DXCat Number: INF07

DXCat Label: Coxsackie and ECHO Infections

Etiology:

Infection, Viral

### Stage Description

### References:

Beers MH, Berkow R. eds. Childhood infections/viral infections. In: Merck Manual. 17th ed. Whitehouse Station, NJ: Merck Research Laboratories; 1999:2320-2357.

Chang LY, Huang YC, Lin TY. Fulminant neurogenic pulmonary oedema with hand, foot, and mouth disease. Lancet. 1998;352(9125):367-8.

Cohen JI. Enteroviruses and reoviruses. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1118-1123.

Morag A, Ogra PL. Enteroviruses. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:873-883.

Ogle JW. Infections: viral and rickettsial/infections due to enteroviruses. In: Hay WW, Groshus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:969-973.

Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1231-1267.

Wessely R, Henke A, Zell R, Kandolf R, Knowlton KU. Low-level expression of a mutant coxsackieviral cDNA induces a myocytopathic effect in culture: an approach to the study of enteroviral persistence in cardiac myocytes. Circulation. 1998;98(5):450-7.

## Clinical Criteria with Description

DXCat Number: INF08

DXCat Label: Cryptococcosis

Etiology:

Infection

### Stage Description

1.01	Cryptococcal infection
1.02	Cryptococcal dermatitides
2.01	Cryptococcal pneumonia
2.02	Cryptococcal urinary tract infection
2.03	Cryptococcal osteomyelitis or endophthalmitis or hepatitis or endocarditis or pericarditis or pyelonephritis
3.01	Cryptococcal meningitis
3.02	Cryptococcal encephalitis
3.03	with sepsis
3.04	with coma
3.05	with shock
4.00	with death

### References:

Bennett JE. Cryptococcosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1153-1154.

Ely EW, Peacock JE Jr, Haponik EF, Washburn RG. Cryptococcal pneumonia complicating pregnancy. *Medicine*. 1998;77(3):153-67.

Hamill RJ. Infectious diseases: mycotic. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange, 1998:1388-1400.

Murakawa GJ, Kerschmann R, Berger T. Cutaneous Cryptococcus infection and AIDS. Report of 12 cases and review of the literature. *Archives of Dermatology*. 132(5):545-8, 1996 May.

## Clinical Criteria with Description

DXCat Number: INF09

DXCat Label: Cytomegalovirus Disease, (Acquired)

Etiology:

Infection, Viral

Stage	Description
1.01	Cytomegalovirus disease of the salivary glands
1.02	Cytomegalovirus retinitis
1.03	Cytomegalovirus retinitis with retinal hemorrhages or infiltrates or disk edema
1.04	Cytomegalovirus retinitis with retinal detachment
2.01	with hepatitis
2.02	Cytomegalovirus mononucleosis
2.03	with ulcers of the gastrointestinal tract
2.04	with pneumonitis
3.01	with glomerulopathy or renal failure
3.02	with meningoencephalitis
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF09

DXCat Label: Cytomegalovirus Disease, (Acquired)

Etiology:

Infection, Viral

### Stage Description

### References:

Beers MH, Berkow R. eds. Cytomegalovirus infection. In: Merck Manual. 17th ed. Whitehouse Station, NJ: Merck Research Laboratories; 1999:1295-1296.

Hirsch MS. Cytomegalovirus and human herpesvirus Types 6, 7, and 8. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1092-1095.

Huang YC, Lin TY, Huang CS, Hseun C. Ileal perforation caused by congenital or perinatal cytomegalovirus infection. *Journal of Pediatrics*. 1996;129(6):931-4.

Ogle JW. Infection: viral and rickettsial/infections due to enteroviruses. In: Hay WW, Groshius JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:969-973.

Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange, 1998:1231-1267.

Stagno S. Cytomegalovirus. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:895-897.

## Clinical Criteria with Description

DXCat Number: INF10

DXCat Label: Herpes Simplex Infections

Etiology:

Infection, Viral

### Stage Description

1.01	Oral herpes simplex or cutaneous infections or primary herpes simplex or recurrent herpes simplex
1.02	Genital herpes simplex infections
1.03	Herpetic keratitis
1.04	with erythema multiforme
2.01	Exzema herpeticum
2.02	with Bell's Palsy or paresthesia or hypesthesia
2.03	with iridocyclitis or urethral strictures or labial fusion or prostatitis or cystitis
2.04	Visceral herpetic infection or pneumonitis
3.01	with aseptic meningitis
3.02	Herpes simplex meningoencephalitis
3.03	with respiratory failure
4.00	with death

### References:

Sterling JC, Kurtz JB. Viral infections. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkins/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd., 1998:1008-1014.

Weston et al. Target lesions on the lips: childhood herpes simplex associated with erythema multiforme mimics Steven-Johnson syndrome. J Am Acad Dermatol. 1997;(37): 848-50.

## Clinical Criteria with Description

DXCat Number: INF11

DXCat Label: Herpes zoster

Etiology:

Infection, Viral

Stage	Description
1.01	Herpes zoster
1.02	with postherpetic neuralgia
1.03	with involvement of the ophthalmic branch of the trigeminal nerve
1.04	with keratitis
2.01	with keratouveitis
2.02	with retinitis or optic neuritis or iridocyclitis
2.03	with facial nerve involvement
2.04	with cutaneous dissemination
3.01	Involving the gastrointestinal or genitourinary or respiratory tracts
3.02	with aseptic meningitis and disorientation
4.00	with death

### References:

- Berger TG. Skin & appendages. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:111-180.
- Kost RG, Straus SE. Postherpetic neuralgia--pathogenesis, treatment, and prevention. N Engl J Med. 1996;335(1):32-42.
- Richards P. Shingles in one family practice. Archives of Family Medicine. 1996;5(1):42-6.
- Whitley RJ. Varicella-Zoster virus infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1086-1089.

## Clinical Criteria with Description

DXCat Number: INF12

DXCat Label: Histoplasmosis

Etiology:

Infection

### Stage Description

1.01	Acute histoplasmosis
1.02	Histoplasma choroiditis
1.03	Histoplasma choroiditis with reduced vision
1.04	Histoplasma choroiditis with active subretinal neovascularization
1.05	Histoplasma choroiditis with inactive subretinal neovascularization
2.01	Mucocutaneous histoplasmosis
2.02	with cavitory pneumonia
2.03	with hepatosplenomegaly
2.04	with adrenal insufficiency
3.01	with endocarditis
3.02	with meningitis
3.03	with sepsis
3.04	with respiratory failure
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF12

DXCat Label: Histoplasmosis

Etiology:

Infection

### Stage Description

### References:

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Bennett JE. Histoplasmosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1150-1151.

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Hamill RJ. "infectious diseases: mycotic. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1388-1400.

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Wheat J. Histoplasmosis. Experience during outbreaks in Indianapolis and review of the literature. Medicine. 76(5):339-54, 1997 Sep

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## Clinical Criteria with Description

DXCat Number: INF13

DXCat Label: Infectious Mononucleosis

Etiology:

Infection, Viral

Stage	Description
0.00	Past infection with Epstein-Barr virus
1.01	Acute infectious mononucleosis
1.02	with hepatosplenomegaly
2.01	with hepatitis
2.02	with upper airway obstruction
2.03	with hemolytic anemia
2.04	with interstitial pneumonia
2.05	with pericarditis
2.06	with splenic rupture
3.01	with myocarditis
3.02	with meningoencephalitis
3.03	with respiratory failure
3.04	with coma
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF13

DXCat Label: Infectious Mononucleosis

Etiology:

Infection, Viral

### Stage Description

### References:

Cohen JL. Epstein-barr virus infections, including infectious monoucelosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1089-1091.

Connelly KP, DeWitt LD. Neurologic complications of infectious mononucleosis. *Pediatric Neurology*. 1994;10(3):181-184.

Jenson HB. Epstein-barr virus. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:897-901.

Levin MJ. Infections: viral and rickettsial/infectious mononucleosis. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:980-982.

Shandera WX, Carlini ME. Infectious diseases: viral and rickettsial/infectious mononucleosis. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1238-1239.

Straus SE, Cohen JL, Tosato G, Meier J. Epstein-barr virus infections: biology, pathoensis and management. *Annals of Internal Medicine*. 1993;118:45-58.

## Clinical Criteria with Description

DXCat Number: INF14

DXCat Label: Leprosy (Hansen's disease)

Etiology:

Infection, Bacterial

### Stage Description

1.01	Indeterminate leprosy
1.02	Tuberculoid type
1.03	Borderline group (borderline tuberculoid, borderline borderline, borderline lepromatous)
1.04	Lepromatous type
2.01	Type I reaction (Downgrading or upgrading) OR Type II reaction (erythema nodosum leprosum)
2.02	with loss of hands or feet
3.01	with pulmonary tuberculosis
4.00	with death

### References:

Abulafia J, Vignale RA. Leprosy: pathogenesis updated. *Int J Dermatol.* 1999;(38): 321-334.

Lockwood DNJ, Bryceson ADM. Leprosy. In: Champion RH, Burton JL, Burns DA, Breathnach SM. *Rook/Wilkinson, Ebling Textbook of Dermatology.* 6th ed. Oxford: Blackwell Science Ltd.; 1998:1215-1235.

Miller RA. Leprosy: Hansen's disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1014-1019.

## Clinical Criteria with Description

DXCat Number: INF15

DXCat Label: Listeriosis

Etiology:

Infection, Bacterial

Stage	Description
1.01	Listeriosis
1.02	Listeria conjunctivitis
2.01	Oculoglandular listeriosis
2.02	Listeria urethritis
2.03	Listeria pneumonia
2.04	Listeria lung abscess
3.01	with endocarditis
3.02	with meningitis
3.03	with sepsis
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF15

DXCat Label: Listeriosis

Etiology:

Infection, Bacterial

### Stage Description

### References:

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- Alriton W. Listeriosis. In: Behrman RE, Lkiegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:810-811.
- 
- Beers MH, Berkow R, eds. Neonatal listeriosis. In: Merck Manual. 17th ed. Whitehouse Station, NJ: Merck Research Laboratories; 1999:2184-2185.
- 
- Chambers HF. Infectious diseases: bacterial & chlamydial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. In: Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange, 1998:1267-1304.
- 
- Cole FS. Bacterial infections of the newborn/infection with listeria monocytogenes. In: Taeusch HW and Ballard RA, eds. Avery's Diseases of the Newborn, 7th ed. Philadelphia, PA: WB Saunders; 1998:496-497.
- 
- Ogle JW. Infections: Bacterial and spirochetal/listeriosis. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:1044-1045.
- 
- Schuchat A, Broome CV. Infections caused by listeria monocytogenes. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:899-901.
- 
- Southwick FS, Purich DL. Intracellular pathogenesis of listeriosis. N Engl J Med. 334(12):770-6, 1996 Mar 21
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## Clinical Criteria with Description

DXCat Number: INF16

DXCat Label: Lyme disease (Erythema chronicum migrans)

Etiology:

Infection, Bacterial

### Stage Description

0.00	History of Erythema chronicum migrans
1.01	Erythema chronicum migrans
2.01	with fever
2.02	with lymphadenopathy
2.03	with arthralgia
2.04	with hepatosplenomegaly
3.01	with myocarditis
3.02	with meningitis
3.03	with coma
4.00	with death

### References:

- Hay RJ, Adriaans BM. Bacterial infections. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Winkinson/Ebing. Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd., 1998:1160-1162.
- Schuttelaar MLA, Laeijendecker R, Heinhuis RJ, Joost TV. Erythema multiforme and persistent erythema as early cutaneous manifestations of Lyme disease. J Am Acad Dermatol. 1997; (37):873-875.

## Clinical Criteria with Description

DXCat Number: INF17

Etiology:

DXCat Label: Lymphogranuloma Venereum

Infection

### Stage Description

1.01	Lymphogranuloma venereum
2.01	with ulcerations of inguinal lymph nodes
2.02	with ulcerative proctitis or sinus tract formation
2.03	with elephantiasis
2.04	with rectovaginal fistula
2.05	with rectal strictures

### References:

Berkow R, Fletcher AJ, eds. In: Merck Manual. 16th ed. Rahway, NJ: Merck & Co., Inc.; 1992:268-269.

Stamm WE, Holmes KK. Chlamydial infections. In: Wilson JD, Braunwald E, Isselbacher KJ, Petersdorf RG, Martin JB, Fauci AS, Root RK, eds. Harrison's Principles of Internal Medicine. 12th ed. New York, NY: McGraw-Hill; 1991:764-772.

## Clinical Criteria with Description

DXCat Number: INF18

DXCat Label: Measles or Rubeola

Etiology:

Infection, Viral

Stage	Description
1.01	Rubeola
1.02	with keratitis
1.03	with otitis media
1.04	with tracheolaryngobronchitis (croup)
2.01	with pneumonitis
3.01	with acute encephalitis
3.02	with congestive heart failure
3.03	with subacute sclerosing panencephalitis
3.04	with respiratory failure
3.05	with coma
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF18

DXCat Label: Measles or Rubeola

Etiology:

Infection, Viral

### Stage Description

### References:

Asher DM. Slow viral infections of the human nervous system. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:934-940.

Beers MH, Berkow R. eds. Childhood infections/viral infections. In: Merck Manual. 17th ed. Whitehouse Station, NJ: Merck Research Laboratories; 1999:2320-2357.

Cutts FT, Steinglass R. Should measles be eradicated? 1998;133):765-7.

de Quadros CA, Olive JM, Hersh BS, et al. Measles elimination in the Americas. Evolving strategies. JAMA. 275(3):224-9, 1996 Jan 17.

Gershon A. Measles (rubeola). In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1123-1125.

Maldonado Y. Measles. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:565-871.

Ogle JW. Infections: viral and rickettsial/measles. In: Hay WW, Groshus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange, 1997:965-969.

Shandera WX, Carlini ME. "Infectious Diseases: Viral & Rickettsial." In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds Current Pediatric Diagnosis and Treatment. Stamford, CT: Appleton & Lange; 1998:1231-1267.

## Clinical Criteria with Description

DXCat Number: INF19

DXCat Label: Mucormycosis

Etiology:

Infection

Stage	Description
1.01	Mucormycosis
2.01	Orbital mucormycosis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Bennett JE. Mucormycosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1156-1158.

deShazo RD, O'Brien M, Chapin K, Soto-Aguilar M, Gardner L, Swain R. A new classification and diagnostic criteria for invasive fungal sinusitis. Archives of Otolaryngology—Head & Neck Surgery. 1997;123(11):1181-8.

Hamill RJ. Infectious diseases: mycotic. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1388-1400.

Harril WC, Stewart MG, Lee AG, Cernoch P. Chronic rhinocerebral mucormycosis. Laryngoscope. 1996;106(10):1292-7.

Strasser MD, Kennedy RJ, Adam RD. Rhinocerebral mucormycosis. Therapy with amphotericin B lipid complex. Archives of Internal Medicine. 1996;156(3):337-9.

## Clinical Criteria with Description

DXCat Number: INF20

DXCat Label: Poliomyelitis

Etiology:

Infection, Viral

Stage	Description
1.01	Abortive poliomyelitis
1.02	with septic meningitis
2.01	Spinal poliomyelitis with monoplegia or paraplegia
2.02	Bulbar poliomyelitis with respiratory involvement
3.01	Bulbar poliomyelitis with respiratory failure
3.02	Poliomyelitis with shock
4.00	Poliomyelitis with death

### References:

Cohen JI. Enteroviruses and reoviruses. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:1118-1123.

Patriarca PA, Foegen WH, Swartz TA. Progress in polio eradication. Lancet. 1993;342(8885):1461-1464.

Shandera WX, Carlini ME. Poliomyelitis. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1244-1246.

Thorsteinsson G. Management of postpolio syndrome. Mayo Clinic Proceedings. 1997;72(7):627-638.

## Clinical Criteria with Description

DXCat Number: INF21

DXCat Label: Post-Polio Syndrome

Etiology:

Infection, Viral

Stage	Description
2.01	Post-Polio Syndrome
2.02	with progressive nocturnal hypoventilation or sleep apnea
2.03	with pulmonary hypertension or cor pulmonale
3.01	with respiratory failure
3.02	with shock

### References:

- Bartfeld H and Ma D. Recognizing post-polio syndrome. *Hospital Practice*. 1996;31:95-107.
- Cohen JI. Enteroviruses and reoviruses/poliiovirus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*, 14th ed. New York, NY: McGraw-Hill; 1998:1120-1121.
- Hsu AA, Staats BA. Postpolio sequelae and sleep-related disordered breathing. *Mayo Clinic Proceedings* 1998;73:216-224.
- Nolan P, Beeston P. Post polio syndrome. *Australian Family Physician*. 1997;26:1055-1059.
- Thorsteinsson G. Management of postpolio syndrome. *Mayo Clinic Proceedings* 1997;72:627-638.

## Clinical Criteria with Description

DXCat Number: INF22

DXCat Label: Reye's Syndrome

Etiology:

Infection; Toxicologic

Stage	Description
3.01	Reye's syndrome
3.02	with hypoglycemia
3.03	with hepatic failure
3.04	with seizures
3.05	with respiratory failure
3.06	with decerebrate rigidity
3.07	with coma
3.08	with shock
4.00	with death

### References:

- Balisteri WF. Reye's syndrome. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1144-1145.
- Glasgow JFT and Moore R. Current concepts in Reye's syndrome. Brit. J. Hosp. Med. 1993;50:599-604.
- Greene CL, Blitzler MG, Shapira E. Inborn errors of metabolism and Reye's syndrome: differential diagnosis. J. Pediatrics 1988;113:156-159.
- Sokol RJ and Narkewicz MR. Liver and pancreas/Reye's syndrome. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:598-599.

## Clinical Criteria with Description

DXCat Number: INF23

DXCat Label: Rheumatic Fever

Etiology:

Immune; Infection, Bacterial

Stage	Description
1.01	Rheumatic fever with migratory polyarthritis
1.02	with erythema marginatum or subcutaneous nodules
1.03	with Sydenham's chorea
2.01	with carditis
2.02	with valvular disease
3.01	with endocarditis
3.02	with congestive heart failure
3.03	with sepsis
3.04	with respiratory failure
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF23

DXCat Label: Rheumatic Fever

Etiology:

Immune; Infection, Bacterial

### Stage Description

### References:

Bernstein D. Rheumatic heart disease. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1347-1349.

Dajani AS et al. Guidelines for the diagnosis of rheumatic fever: Jones criteria updated 1992. *Circ*. 1993; 87:302-307.

Kaplan EL. Rheumatic fever. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1309-1311.

Kaplan EL. Recent epidemiology of group A streptococcal infections in North America and abroad: an overview. [Review] [25 refs] [Journal Article. Review. Review, Tutorial] *Pediatrics*. 97(6 Pt 2):945-8, 1996

Massie BM, Amidon TM. Acute rheumatic fever and rheumatic heart disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:417-419.

Stollerman GH. Rheumatic fever *Lancet*. 1997;349(9056):935-942.

Todd J. Rheumatic fever. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:754-760.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Acquired heart disease. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:516-524.

## Clinical Criteria with Description

DXCat Number: INF24

DXCat Label: Rickettsioses

Etiology:

Infection

### Stage Description

1.01	Uncomplicated rickettsial infection
2.01	Q fever with pneumonia or hepatitis
2.02	Disseminated intravascular coagulation or gangrene
3.01	Rocky Mountain spotted fever with renal failure
3.02	Q fever with disorientation
3.03	Q fever with endocarditis
3.04	with shock
4.00	with death

### References:

Brouqui P, Harle JR, Delmont J, Frances C, Weiller PJ, Raoult D. African tick-bite fever. an imported spotless rickettsiosis. Archives of Internal Medicine. 1997;157(1):119-24.

Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1231-1267.

Walker D, Raoult D, Brouqui P, Marrie T. Rickettsial diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1045-1052.

Walker DH, Barbour AG, Oliver JH. Emerging bacterial zoonotic and vector-borne diseases. Ecological and epidemiological factors. JAMA. 1996;275(6):463-9.

## Clinical Criteria with Description

DXCat Number: INF25

DXCat Label: Rubella: Acquired

Etiology:

Infection, Viral

Stage	Description
1.01	Rubella
1.02	with otitis media
2.01	with arthralgia
2.02	with arthritis
2.03	with hepatitis
2.04	with thrombocytopenic purpura
2.05	with bronchopneumonia
3.01	with myocarditis
3.02	with encephalitis
3.03	with respiratory failure
3.04	with coma
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF25

DXCat Label: Rubella: Acquired

Etiology:

Infection, Viral

### Stage Description

### References:

Banatvala JE. Rubella--could do better. *Lancet*. 351(9106):849-50, 1998 Mar 21.

Beers MH, Berkow R, eds. Rubella. In: *Merck Manual*. 17th ed. Whitehouse Station, NJ: Merck Research Laboratories; 1999:2327-2329.

Gershon A. Rubella (German measles). In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1125-1127.

Maldonado Y. Rubella. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:871-873.

Ogle JW. Infections: viral and rickettsial/rubella. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th Ed. Stamford, CT: Appleton & Lange; 1997:987-989.

Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1231-1267.

Thomas DR, Salmon RL, King J. Rates of first measles-mumps-rubella immunisation in Wales (UK). *Lancet*. 1998;351(9120):1927.

## Clinical Criteria with Description

DXCat Number: INF26

DXCat Label: Schistosomiasis

Etiology:

Infection

### Stage Description

1.01	Schistosoma dermatitis or swimmer's itch
1.02	Acute schistosomiasis
2.01	with cystitis or colitis
2.02	with hydroureter or hydronephrosis
2.03	with liver fibrosis
2.04	with cor pulmonale
3.01	with renal failure
3.02	with central nervous system lesions
3.03	with coma
3.04	with shock
4.00	with death

### References:

Barrou B, Bitker MO, Boyer C, Sylla C, Chatelain C. Results of renal transplantation in patients with Schistosoma infection. Journal of Urology. 1997;157(4):1232-5.

Dunne DW, Hagan P, Abath FG. Prospects for immunological control of schistosomiasis. Lancet. 1995;345(8963):1488-91.

Goldsmith RS. Infectious diseases: protozoal & helminthic. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1324-1388.

Nash TE, Weller PF. Protozoal intestinal infections and trichomoniasis." In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1202-1206.

## Clinical Criteria with Description

DXCat Number: INF27

DXCat Label: Syphilis: Acquired

Etiology:

Infection, Bacterial

Stage	Description
1.01	Primary syphilis
2.01	Secondary syphilis
2.02	Secondary syphilis with uveitis
2.03	Asymptomatic neurosyphilis
2.04	Syphilis with visceral crisis
2.05	Tertiary syphilis or syphilis involving the liver or spleen or kidney or joints or bones
3.01	Cardiovascular syphilis
3.02	Syphilitic meningitis
3.03	Meningovascular syphilis
3.04	Syphilis with congestive heart failure
3.05	Syphilis with shock
4.00	Syphilis with death

### References:

Gordon SM, Eaton ME, George R, et al. The response of symptomatic neurosyphilis to high-dose intravenous penicillin G in patients with human immunodeficiency virus infection. *N Engl J Med.* 1994;331(22):1469-73.

Jacobs RA. Infectious diseases: spirochetal. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:1304-1324.

Lukehart SA, Holmes KK. Syphilis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1023-1033.

Malone JL, Wallace MR, Hendrick BB, et al. Syphilis and neurosyphilis in a human immunodeficiency virus type-1 seropositive population: evidence for frequent serologic relapse after therapy. *American Journal of Medicine.* 1995;99(1):55-63.

## Clinical Criteria with Description

DXCat Number: INF28

DXCat Label: Tetanus

Etiology:

Infection, Bacterial

Stage	Description
1.01	Tetanus
1.02	with rigidity
2.01	with reflex spasms
2.02	with fracture of vertebrae
2.03	with deep vein thrombosis
2.04	with aspiration pneumonia
2.05	obstructive apnea or laryngospasm
3.01	with pulmonary emboli
3.02	with myocarditis
3.03	with sepsis
3.04	with respiratory failure
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF28

DXCat Label: Tetanus

Etiology:

Infection, Bacterial

### Stage Description

### References:

- Abrutyn E. Tetanus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:901-904.
- Arnon, Stephen. Tetanus" In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders, 1996; 815-817.
- Attygalle D, Karalliedde. Unforgettable Tetanus. European Journal of Anaesthesiology. 1997;14:122-133.
- Centers for Disease Control and Prevention. Manual for the surveillance of vaccine-preventable diseases. Centers for Disease Control and Prevention: Atlanta, GA, 1997.
- Chamber HF. Tetanus. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1276-1277.
- Finegold, S. Aspiration pneumonia. Reviews of Infectious Diseases 1991; 13(Suppl 9):S737-42.
- Galazka A, Gasse F. The present status of tetanus and tetanus vaccination. Current Topics in Microbiology & Immunology 1995; 195:31-53.
- Ogle, JW. Infections: bacterial and spirochetal/tetanus. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:1022-1023.
- Sanford JP. Tetanus - forgotten but not gone. N Engl J Med. 1995;332:812-813.

## Clinical Criteria with Description

DXCat Number: INF29

Etiology:

DXCat Label: Toxoplasmosis: Acquired

Infection

Stage	Description
1.01	Asymptomatic
1.02	Acute toxoplasmosis with lymphadenitis
2.01	Acute Toxoplasma mononucleosis syndrome
2.02	with chorioretinitis
2.03	with chorioretinitis and blindness
2.04	Toxoplasma pneumonia
3.01	Toxoplasma myocarditis
3.02	with disseminated toxoplasmosis
3.03	with meningoencephalitis
3.04	with coma
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF29

DXCat Label: Toxoplasmosis: Acquired

Etiology:

Infection

### Stage Description

### References:

- American Academy of Pediatrics. *Toxoplasma gondii* infections. In Peter G, ed. 1997 Red Book: Report on the Committee on Infectious Diseases. 24th ed. Elk Grove Village, IL: American Academy of Pediatrics; 1997:531-535.
- Goldsmith RS. Infectious diseases: protozoal and helminthic/toxoplasmosis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1353-1356.
- Kasper LH. *Toxoplasma* infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1197-1202.
- Lynfield R, Guerina NG. Toxoplasmosis. *Pediatrics in Review*. 1997;18:75-83.
- McLeod R, Remington JS. Toxoplasmosis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:978-987.
- Weinberg A, Levin MJ. Parasitic and mycotic infections/toxoplasmosis. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997: 1074-76.

## Clinical Criteria with Description

DXCat Number: INF30

DXCat Label: Varicella (Chickenpox)

Etiology:

Infection, Viral

Stage	Description
1.01	Varicella
1.02	with orchitis
1.03	with arthritis
1.04	with neuralgia
1.05	with conjunctivitis or keratitis
2.01	with pneumonia
2.02	with hepatitis
2.03	with thrombocytopenia
3.01	with myocarditis
3.02	with renal failure
3.03	with Reye's syndrome
3.04	with meningoencephalitis
3.05	with coma
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: INF30

DXCat Label: Varicella (Chickenpox)

Etiology:

Infection, Viral

### Stage Description

### References:

Anonymous. Leprosy. Report of a meeting of physicians and scientists at the all India Institute of Medical Sciences, New Delhi. *Lancet*. 1995;345(8951):697-703.

Chambers HF. Infectious diseases: bacterial & chlamydial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1267-1304.

Krause PR, Klinman DM. Efficacy, immunogenicity, safety, and use of live attenuated chickenpox vaccine. *Journal of Pediatrics*. 1995;127(4):518-25.

Levin MJ. Infections viral and rickettsial/varicella and herpes-zoster. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997: 975-977.

Ling et al. Herpes zoster after varicella immunization. *J Am Acad Dermatol*. 1998;(38):761-3.

Nath I. Infectious diseases. forward to the past. *Lancet*. 1996;Suppl 2:sII11:348.

Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1231-1267.

Sterling JC, Kurtz JB. Viral infections. In: Champion RH, Burton JL, Burns DA, Breathnach SM. *Rook/Winkinson/Ebling Textbook of Dermatology*. 6th ed. Oxford: Blackwell Science Ltd.; 1998:1015-1022.

Stover BH, Bratcher DF. Varicella-zoster virus: infection, control, and prevention. *American Journal of Infection Control*. 1998;26(3):369-81.

Whitley RJ. Varicella-zoster virus infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1086-1089.

## Clinical Criteria with Description

DXCat Number: INF80

DXCat Label: Anthrax

Etiology:

Infection, Bacterial

Stage	Description
0.00	Contact with or exposure to Anthrax
1.01	Cutaneous or unspecified anthrax
2.01	Gastrointestinal anthrax
3.01	Pulmonary anthrax
3.02	Anthrax septicemia

### References:

## Clinical Criteria with Description

DXCat Number: INF81

DXCat Label: Malaria

Etiology:

Infection

Stage	Description
0.00	Personal history of malaria
1.01	Malaria, uncomplicated
2.01	Malaria complicated by anemia, thrombocytopenia, or other non-specific condition
2.02	Blackwater fever or malaria with jaundice, hepatomegaly, splenomegaly, hepatitis, retinal hemorrhages, or nephrosis
3.01	with respiratory failure
3.02	with encephalitis or shock
3.03	with coma

### References:

## Clinical Criteria with Description

DXCat Number: INF82

DXCat Label: Other Bacterial Infections

Etiology:

Infection, Bacterial

Stage	Description
1.01	Other bacterial infections
2.01	with pulmonary manifestations
2.02	Bacteremia, yaws, icterohemorrhagica, or infection with endocarditis
3.01	Leptospiral meningitis
3.02	Septicemia

### References:

## Clinical Criteria with Description

DXCat Number: INF83

DXCat Label: Other Fungal Infections

Etiology:

Infection

Stage	Description
1.01	Dermatomycoses

### References:

## Clinical Criteria with Description

DXCat Number: INF84

Etiology:

DXCat Label: Other Infectious and Parasitic Infections

Infection

Stage	Description
1.01	Leishmaniasis, trypanosomiasis, relapsing fever, helminthiases, or other skin involvement, infection with drug resistant organisms
2.01	with non-cardiac organ involvement
3.01	with cardiac or central nervous system involvement

### References:

## Clinical Criteria with Description

DXCat Number: INF85

DXCat Label: Other Viral Infections

Etiology:

Infection, Viral

Stage	Description
1.01	Other viral exanthems, fevers or minor infections or mumps or rabies
2.01	Viral hemorrhagic conditions, respiratory involvement or mumps orchitis, pancreatitis, hepatitis, or polyneuropathy
3.01	Mumps meningitis or encephallitis

### References:

## Clinical Criteria with Description

DXCat Number: MGS01

DXCat Label: Benign Prostatic Hypertrophy

Etiology:

Degenerative

### Stage Description

1.01	Benign prostatic hypertrophy
1.02	with urinary tract infection
2.01	with bladder outlet obstruction
2.02	with hydronephrosis
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

- Anon. Benign prostatic hyperplasia: diagnosis and treatment. AHCPR. Agency for Health Care Policy and Research. J Am Geriatr Soc. 1998;46(9): 1163-5.
- Darson MF, Barrett DM. Transurethral enzyme injection--future management of benign prostatic hyperplasia. Mayo Clinic Proceedings. 1998;73(9):908-11.
- De Marzo AM, Nelson WG, Meeker AK, Coffey DS. Stem cell features of benign and malignant prostate epithelial cells. Journal of Urology. 1998;160(6 Pt 2):2381-92.
- Hollander JB. Chapter 48 Prostate Gland disease. In: Duthie (ed). Practice of Geriatrics, 3rd ed. Philadelphia, PA: WB Saunders: 1998:535-538.
- Jepsen JV. Office evaluation of men with lower urinary tract symptoms. Urol Clin North Am. 1998; 25(4): 545-54.
- Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:878-916.
- Sagalowsky AI, Wilson JD. Hyperplasia and carcinoma of the prostate. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:596-602.
- Stamm WE. Urinary tract infections and pyelonephritis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:817-824.
- The medical management of lower urinary tract symptoms and benign prostatic hyperplasia. Holtgrewe HL - Urol Clin North Am. 1998;25(4): 555-69.

## Clinical Criteria with Description

DXCat Number: MGS02

DXCat Label: Cryptorchidism

Etiology:

Congenital

### Stage Description

1.01	Undescended testis or cryptorchidism
1.02	with sterility
1.03	with indirect inguinal hernia
2.01	with torsion of the testis
2.02	with development of testicular malignancy (see Staging of Testicular Cancer)

### References:

Davenport M. ABC of general paediatric surgery. Inguinal hernia, hydrocele, and the undescended testis. *BMJ*. 1996;312(7030):564-7.

Dawson C, Whitfield H. ABC of urology. Common paediatric problems. *BMJ*. 1996;312(7041):1291-4.

Fitzgerald PA. Endocrinology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1031-1095.

Gill B. Cryptorchidism. Current concepts. *Pediatr Clin North Am*. 1997;44(5): 1211-27.

Pillai SB. Pediatric testicular problems. *Pediatr Clin North Am*. 1998;45(4): 813-30.

Rajfer, J. Congenital anomalies of the testis and scrotum. Chapter 72. In: Walsh PC, Retik AB, Vaughn ED, Wein AJ, eds. *Campbell's Urology*, 7th ed. Philadelphia, PA. 1998: 2172-2183.

Wilson JD, Griffin JE. Disorders of sexual differentiation. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2119-2131.

## Clinical Criteria with Description

DXCat Number: MGS03

DXCat Label: Gonorrhea: Male

Etiology:

Infection, Bacterial

### Stage Description

1.01	Carrier or suspected carrier of gonorrhea
1.02	Gonococcal urethritis or pharyngitis or proctitis or conjunctivitis
1.03	Gonococcal epididymitis
1.04	with acute prostatitis
2.01	with gonococcal skin infection
2.02	with peritonitis
2.03	with arthritis
3.01	Gonococcal endocarditis or pericarditis
3.02	Infection with meningitis
3.03	with congestive heart failure
3.04	with sepsis
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MGS03

DXCat Label: Gonorrhea: Male

Etiology:

Infection, Bacterial

### Stage Description

### References:

Anonymous. From the Centers for Disease Control and Prevention. Impact of closure of a sexually transmitted disease clinic on public health surveillance of sexually transmitted diseases--Washington, D.C., 1995. *JAMA*. 1999;281(2):127-8.

Anonymous. From the Centers for Disease Control and Prevention. Increases in unsafe sex and rectal gonorrhea among men who have sex with men--San Francisco, California 1994-1997. *JAMA*. 1999;281(8):696-7.

Chambers HF. Infectious diseases: bacterial & chlamydial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. In: *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1267-1304.

Darville T. Gonorrhea. *Pediatr Rev*. 1999;20(4):125-8.

Holmes KK, Morse SA. Gonococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:915-922.

Moran, JS. Chapter 182 gonorrhea. In: *Rakel Conn's Current Therapy 1999*, 51st ed. Philadelphia, PA: WB Saunders; 1999.

Rome ES. Sexually transmitted diseases: testing and treating. *Adolesc Med*. 1999;10(2):231-41.

Sparling PF. Gonococcal infections. In: Wyngaarden JB, Smith Jr LH, Bennett JC, eds. *Cecil Textbook of Medicine*. 19th ed. Vol 2. Philadelphia, PA: WB Saunders, 1992:1755-1759.

## Clinical Criteria with Description

DXCat Number: MGS04

DXCat Label: Neoplasm, Malignant: Breast, Male

Etiology:

Neoplasm

### Stage Description

0.00	History of carcinoma of the breast
1.01	in situ
1.02	Cystosarcoma phyllodes
1.03	≤ 2 cm in diameter
1.04	> 2 cm and ≤ 5 cm in diameter or single ipsilateral node involved
2.01	> 5 cm in diameter
3.01	Nodal involvement with fixation
3.02	Tumor extension to skin or tumor extension to chest or internal mammary node involvement
3.03	with metastasis
4.00	and death

### References:

American Joint Committee on Cancer. Manual for Staging of Cancer. Lippincott, 1992.

Giuliano AE. Breast. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:666-689.

Joshi MG et al: Male breast carcinoma: an evaluation of prognostic factors contributing to a poor outcome. Cancer 1996;77:490.

Lippman ME. "Breast Cancer." In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:562-568.

Piccirillo JF, Feinstein AR: Clinical symptoms and co-morbidity: significance for the prognostic classification of cancer. Cancer 1996;77:834.

Salvadori B et al: Prognosis of breast cancer in males: an analysis of 170 cases. Eur J Cancer 1994;30:930.

## Clinical Criteria with Description

DXCat Number: MGS05

DXCat Label: Neoplasm, Malignant: Penile

Etiology:

Neoplasm

### Stage Description

1.01	Cancer in situ of penis
1.02	Localized penile cancer
1.03	Superficially invasive
2.01	with corporal body invasion
2.02	with invasion of adjacent structures
2.03	with invasion of adjacent organs
2.04	with involvement of a single lymph node
3.01	with involvement of multiple lymph nodes
3.02	with involvement of pelvic lymph nodes
3.03	with distant metastasis
3.04	with shock
4.00	with death

### References:

Epperson WJ. Male genital cancers. Prim Care. 1998;25(2): 459-72.

Fleming ID, Cooper JS, Henson DE, Hutter RVP, Kennedy BJ, Murphy GP, O'Sullivan B, Yabro JW ed. AJCC Cancer Staging Manual. Lippincott, Philadelphia 1997.

Herr HW, et al. Cancer of the Urethra and Penis. In: DeVita ed. Cancer: Principles and Practice of Oncology, 5th ed. Philadelphia, PA: Lippincott-Raven; 1997:1390-1394.

Parra RO. Accurate staging of carcinoma of the penis in men with nonpalpable inguinal lymph nodes by modified inguinal lymphadenectomy. J Urol. 1996;155(2):560-3.

## Clinical Criteria with Description

DXCat Number: MGS06

Etiology:

DXCat Label: Neoplasm, Malignant: Prostate

Neoplasm

### Stage Description

0.00	History of carcinoma of the prostate
1.01	Less than 3 microscopic areas of carcinoma on prostate
1.02	Greater than 3 areas of microscopic carcinoma on prostate
1.03	Prostate specific antigen diagnosis for prostate carcinoma
2.01	Tumor 1.5 cm in greatest dimension or in more than 1 lobe
2.02	Tumor > 1.5 cm in greatest dimension or in more than 1 lobe
3.01	Tumor has local extension
3.02	with seminal vesicle involvement
3.03	Tumor is fixed or invades adjacent structures
3.04	with involvement of a single node $\leq$ 2 cm
3.05	with involvement of node > 2 cm and < 5 cm in diameter
3.06	with nodes > 5 cm in diameter
3.07	with distant metastasis
3.08	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MGS06

Etiology:

DXCat Label: Neoplasm, Malignant: Prostate

Neoplasm

### Stage Description

### References:

Fleming ID, Cooper JS, Henson DE, Hutter RVP, Kennedy BJ, Murphy GP, O'Sullivan B, Yabro JW ed. AJCC Cancer Staging Manual. Lippincott, Philadelphia 1997.

Gleave ME, Bruchofsky N, Moore MJ, Venner P. Prostate cancer: 9. Treatment of advanced disease. CMAJ. 1999;160(2):225-32.

Goldenberg SL, Ramsey EW, Jewett MA. Prostate cancer: 6. Surgical treatment of localized disease. CMAJ. 1998;159(10):1265-71.

Moul JW. Treatment options for prostate cancer: Part I – stage, grade, PSA, and changes in the 1990's. Am. J. Managed Care. 1998;4:1031-1036.

Moul JW. Treatment options for prostate cancer: Part II – early and late stage and hormone refractory disease. Am. J. Managed Care. 1998;4:1171-1180.

Perrotti M, Pantuck A, Rabbani F, Israeli RS, Weiss RE. Review of staging modalities in clinically localized prostate cancer. Urology. 1999;54(2):208-14.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:878-916.

Sagalowsky AI, Wilson JD. Hyperplasia and carcinoma of the prostate. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:596-602.

Walsh, P. Prostate cancer in Campbell's urology, 7th ed. Philadelphia, PA: W. B. Saunders; 1998:2489-2658.

Warde P, Catton C, Gospodarowicz MK. Prostate cancer: 7. Radiation therapy for localized disease. CMAJ. 1998;159(11):1381-8.

## Clinical Criteria with Description

DXCat Number: MGS07

Etiology:

DXCat Label: Neoplasm, Malignant: Testicular

Neoplasm

### Stage Description

0.00	History of cancer of the testis
1.01	Cancer of the testis limited to the testis and epididymis
1.02	with extension beyond the tunica albuginea into tunica vaginalis
1.03	with involvement of the spermatic cord
2.01	with invasion of the scrotum
2.02	with involvement of a single lymph node $\leq$ 2 cm
3.01	with involvement of node $>$ 2 cm and $\leq$ 5 cm in diameter
3.02	with nodes $>$ 5 cm in diameter
3.03	with distant metastasis
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MGS07

Etiology:

DXCat Label: Neoplasm, Malignant: Testicular

Neoplasm

### Stage Description

### References:

Einhorn LH, Donohue JP. Advanced testicular cancer: update for urologists. *Journal of Urology*. 1998;160(6 Pt 1):1964-9.

Epperson WJ. Male genital cancers. *Prim Care*. 1998;25(2): 459-72.

Fleming ID, Cooper JS, Henson DE, Hutter RVP, Kennedy BJ, Murphy GP, O'Sullivan B, Yabro JW ed. *AJCC Cancer Staging Manual*. Lippincott, Philadelphia 1997.

Klotz LH. Why is the rate of testicular cancer increasing? *CMAJ*. 1999;160(2):213-4.

Lashley DB. A rational approach to managing stage I nonseminomatous germ cell cancer. *Urol Clin North Am*. 1998;25(3): 405-23.

Mostofi FK, Sesterhenn IA. Anatomy and pathology of testis cancer. In: Vogelzang NJ, Scardino PT, Shipley WU, Coffey DS, eds. *Comprehensive Textbook of Genitourinary Oncology*. Baltimore, MD: Williams & Wilkins; 1996: 953-967.

Motzer RJ, Bosl GJ. Testicular cancer and trophoblastic diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:602-605.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:878-916.

Richie JP. Neoplasms of the testis. In: Walsh PC, Retik AB, Vaughn ED, Wein AJ, eds. *Campbell's Urology*. 7th ed. Philadelphia, PA. 1998:2411-2452.

Sternberg CN. The management of stage I testis cancer. *Urol Clin North Am*. 1998; 25(3): 435-49.

## Clinical Criteria with Description

DXCat Number: MGS08

DXCat Label: Prostatitis

Etiology:

Idiopathic; Infection; Trauma

### Stage Description

1.01	Chronic abacterial prostatitis
1.02	Chronic bacterial prostatitis
1.03	Acute bacterial prostatitis
2.01	Prostatic abscess
2.02	with bladder outlet obstruction
2.03	with epididymo-orchitis
2.04	with pyelonephritis
2.05	with hydronephrosis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Aarnink RG, Beerlage HP, De La Rosette JJ, Debruyne FM, Wijkstra H. Transrectal ultrasound of the prostate: innovations and future applications. *Journal of Urology*. 1998;159(5):1568-79.

Collins MM, Stafford RS, O'Leary MP, Barry MJ. How common is prostatitis? A national survey of physician visits. *Journal of Urology*. 1998;159(4):1224-8.

Goforth GA. Prostatitis. In: *Dambro: Griffith's 5-minute clinical consult*. Philadelphia, PA: Lippincott Williams & Wilkins, Inc.: 1999.

Nickel JC. Effective office management of chronic prostatitis. *Urol Clin North Am*. 1998;25(4): 677-84.

Pewitt EB. Urinary tract infection in urology, including acute and chronic prostatitis. *Infect Dis Clin North Am*. 1997;11(3): 623-46.

Presti Jr JC, Stoller ML, Carroll PR. Urology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:878-916.

Stamm WE. Urinary tract infections and pyelonephritis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:817-824.

## Clinical Criteria with Description

DXCat Number: MGS80

Etiology:

DXCat Label: Neoplasm, Benign: Male Reproductive System

Neoplasm

Stage	Description
1.01	Benign neoplasm of male genital system

### References:

## Clinical Criteria with Description

DXCat Number: MGS81

Etiology:

DXCat Label: Other Disorders of Male Genital System

Stage	Description
1.01	Prostatic cyst, calculus, dysplasia, hydrocele, phimosis, fertility disorders
1.02	Orchitis

References:

## Clinical Criteria with Description

DXCat Number: MUS01

DXCat Label: Bursitis

Etiology:

Degenerative; Trauma

### Stage Description

1.01	Bursitis
1.02	Acute calcareous tendonitis with bursitis
1.03	Supraspinatus or tensor fascia lata tendonitis with bursitis
1.04	Bursitis with bacterial infection

### References:

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:97-99.

Gilliland BC. Relapsing polychondritis and other arthritides. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1951-1965.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.

Stell IM, Gransden WR. Simple tests for septic bursitis: comparative study. BMJ. 1998;316(7148):1877.

## Clinical Criteria with Description

DXCat Number: MUS02

DXCat Label: Dislocation: Elbow

Etiology:

Trauma

### Stage Description

1.01	Sprains of elbow and forearm
1.02	Dislocation of the elbow
1.03	Humeroradioulnar dislocation
1.04	Dislocation of the elbow with fracture of the coronoid process
1.05	Dislocation of the elbow with fracture of the head of the radius or epicondyle
1.06	Dislocation of the elbow with injury to the brachialis muscle or triceps muscle
2.01	Dislocation of the elbow with injury to the median nerve or ulnar nerve
2.02	Dislocation of the elbow with injury to the brachial artery

### References:

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:217-218.

Fitch RD, Speer KP. Fractures and dislocations: fractures and dislocations of the shoulder, arm, and forearm. In: Sabiston DC, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1998:1408-1414.

Ring D, Jupiter JB. Fracture-dislocation of the elbow. Journal of Bone & Joint Surgery - American Volume. 1998;80(4):566-80.

## Clinical Criteria with Description

DXCat Number: MUS03

DXCat Label: Dislocation: Knee

Etiology:

Trauma

### Stage Description

1.01	Partial dislocation of the knee
1.02	Complete dislocation of the knee
2.01	with ligamentous injuries
2.02	with injury to the peroneal nerve
2.03	with injury to the popliteal artery
2.04	with osteomyelitis
2.05	with gangrene of the lower leg
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Clasby L, Young MA. Management of sports-related anterior cruciate ligament injuries. *AORN Journal*. 1997;66(4):609-30.

Vail TP, McCollum DE. Fractures and dislocations: fractures of the pelvis, femur, and knee. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1432-1443.

## Clinical Criteria with Description

DXCat Number: MUS04

DXCat Label: Eosinophilia Myalgia Syndrome

Etiology:

Toxicologic

### Stage Description

1.01	Eosinophilia Myalgia Syndrome
2.01	with peripheral neuropathy
2.02	with deep vein thrombosis
2.03	with cardiac conduction abnormalities
2.04	with aspiration pneumonia
3.01	with pulmonary embolism
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.

Hertzman PA, Clauw DJ, Kaufman LD, et al. The eosinophilia-myalgia syndrome: status of 205 patients and results of treatment 2 years after onset. *Annals of Internal Medicine*. 1995;122(11):851-5.

Sullivan EA, Kamb ML, Jones JL et al. The natural history of eosinophilia-myalgia syndrome in a tryptophan-exposed cohort in South Carolina. *Archives of Internal Medicine*. 1996;156(9):973-9.

## Clinical Criteria with Description

DXCat Number: MUS05

DXCat Label: Fracture: Acetabulum

Etiology:

Trauma

### Stage Description

1.01	Fracture of the acetabulum without displacement
1.02	with displacement of the acetabular bone
1.03	Fracture of the dome of the acetabulum
1.04	Fracture of the acetabulum with central displacement of the dome
2.01	Open fracture of the acetabulum
2.02	with injury to the sciatic nerve
2.03	with deep vein thrombosis
3.01	with pulmonary embolism
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Jaffe WL, Scott DF. Total hip arthroplasty with hydroxyapatite-coated prostheses. *Journal of Bone & Joint Surgery - American Volume*. 1996;78(12):1918-34.

Vail TP, McCollum DE. Fractures and dislocations: fractures of the pelvis, femur, and knee. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1432-1443.

## Clinical Criteria with Description

DXCat Number: MUS06

DXCat Label: Fracture: Calcaneus

Etiology:

Trauma

### Stage Description

1.01	Fracture of the calcaneus without displacement
1.02	Fracture of the calcaneus with displacement
2.01	Compound fractures of the calcaneus
2.02	with osteomyelitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:196-197.

Klaue K. Planovalgus and cavovarus deformity of the hind foot. A functional approach to management. Journal of Bone & Joint Surgery - British Volume. 1997;79(6):892-5.

Kundel K, Funk E, Brutscher M, Bickel R. Calcaneal fractures: operative versus nonoperative treatment. Journal of Trauma. 1996;41(5):839-45.

Miric A, Patterson BM. Pathoanatomy of intra-articular fractures of the calcaneus. Journal of Bone & Joint Surgery -American Volume. 1998;80(2):207-12.

## Clinical Criteria with Description

DXCat Number: MUS07

Etiology:

DXCat Label: Fracture: Femur, Except Head or Neck

Trauma

### Stage Description

1.01	Fracture of the femoral shaft without displacement
1.02	Simple fracture of the femoral shaft with two bony fragments
2.01	Segmental fracture of the femoral shaft
2.02	Comminuted fracture of the femoral shaft
2.03	Intercondylar or supracondylar or condylar or epiphyseal fracture of the femoral shaft
2.04	Subtrochanteric fracture of the femoral shaft
2.05	Open fracture of the femoral shaft
2.06	with damage to the femoral nerve or peroneal nerve or tibial nerve or reflex sympathetic dystrophy
2.07	with laceration of the femoral artery or popliteal artery or femoral vein or popliteal vein or hemorrhage
3.01	with pulmonary embolism
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Tominaga GT, Connolly JE, Wilson SE. Bilateral popliteal artery injury from bumper crush injury. *Journal of Trauma*. 1996;40(2):311-3.

Vail TP, McCollum DE. Fractures and dislocations: fractures of the pelvis, femur, and knee. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1432-1443.

## Clinical Criteria with Description

DXCat Number: MUS08

DXCat Label: Fracture: Femur, Head or Neck

Etiology:

Trauma

### Stage Description

1.01	Stable fracture of the head or neck of the femur
2.01	Unstable fractures of the head or neck of the femur
2.02	Open fracture of the head or neck of the femur
2.03	Fracture of the head or neck of the femur with avascular necrosis
2.04	with deep vein thrombosis
3.01	with pulmonary embolism
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Hughes LO, Beaty JH. Fractures of the head and neck of the femur in children. *Journal of Bone & Joint Surgery - American Volume*. 1994;76(2):283-92.

Vail TP, McCollum DE. Fractures and dislocations: fractures of the pelvis, femur, and knee. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1432-1443

## Clinical Criteria with Description

DXCat Number: MUS09

DXCat Label: Fracture: Fibula

Etiology:

Trauma

### Stage Description

1.01	Linear fracture of the fibula without displacement
1.02	Linear fracture of the fibula with displacement
1.03	Comminuted fractures of the fibula
1.04	Segmental fracture of the fibular shaft
2.01	Compound fracture of the fibula
2.02	with compartment syndrome or vascular or neurologic complications
2.03	with crush injuries to soft tissue
2.04	with osteomyelitis
2.05	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Lawless MW, Laughlin RT, Wright DG, Lemmon GW, Rigano WC. Massive pelvis injuries treated with amputations: case reports and literature review. *Journal of Trauma*. 1997;42(6):1169-75.

Levin LS, Garrett WE Jr. Fractures and dislocations: fractures of the tibia, fibula, ankle, and foot. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1444-1451.

## Clinical Criteria with Description

DXCat Number: MUS10

Etiology:

DXCat Label: Fracture: Humerus (Shaft)

Trauma

### Stage Description

1.01	Transverse or oblique fracture of the shaft of the humerus with no displacement
1.02	Fracture of the shaft of the humerus with simple displacement
1.03	Fracture of the shaft of the humerus with comminution and displacement
1.04	Segmental fracture of the shaft of the humerus with displacement
1.05	with interposed muscle tissue
2.01	with soft tissue damage or open fracture
2.02	with injury to the radial nerve
2.03	with reflex sympathetic dystrophy
2.04	with osteomyelitis
2.05	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS10

Etiology:

DXCat Label: Fracture: Humerus (Shaft)

Trauma

### Stage Description

### References:

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Bernstein J, Adler LM, Blank JE, Dalsey RM, Williams GR, Iannotti JP. Evaluation of the Neer system of classification of proximal humeral fractures with computerized tomographic scans and plain radiographs. *Journal of Bone & Joint Surgery - American Volume*. 1996;78(9):1371-5.

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Dowling J. Musculoskeletal disease: staged for rapid comprehension. *Year Book Medical Publishers Inc*. 1985:203-204.

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Kontakis GM, Galanakis IA, Steriopoulos KA. Dislocation of the shoulder and ipsilateral fracture of the humeral shaft: case reports and literature review. *Journal of Trauma*. 1995;39(5):990-2.

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Ogawa K, Ui M. Humeral shaft fracture sustained during arm wrestling: report on 30 cases and review of the literature. *Journal of Trauma*. 1997;42(2):243-6.

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Swamy G, Schemitsch EH. Humeral head fracture dislocation: case report and review of the literature. *Journal of Trauma*. 1998;44(2):377-80.

## Clinical Criteria with Description

DXCat Number: MUS11

DXCat Label: Fracture: Humerus (Supracondylar)

Etiology:

Trauma

### Stage Description

1.01	Supracondylar fracture of the humerus without displacement
1.02	Supracondylar fracture of the humerus with displacement
1.03	Supracondylar fracture of the humerus with cubitus varus deformity
1.04	Supracondylar fracture of the humerus with intercondylar displacement
2.01	Open supracondylar fracture of the humerus
2.02	with injury to the radial nerve or ulnar nerve or medial nerve
2.03	with Volkmann's ischemic contracture
2.04	with osteomyelitis
2.05	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Bernstein J, Adler LM, Blank JE, Dalsey RM, Williams GR, Iannotti JP. Evaluation of the Neer system of classification of proximal humeral fractures with computerized tomographic scans and plain radiographs. *Journal of Bone & Joint Surgery - American Volume*. 1996;78(9):1371-5.

Dowling J. *Musculoskeletal Disease: Staged for Rapid Comprehension*. Year Book Medical Publishers Inc. 1985:203-204.

Kontakis GM, Galanakis IA, Steriopoulos KA. Dislocation of the shoulder and ipsilateral fracture of the humeral shaft: case reports and literature review. *Journal of Trauma*. 1995;39(5):990-2.

Ogawa K, Ui M. Humeral shaft fracture sustained during arm wrestling: report on 30 cases and review of the literature. *Journal of Trauma*. 1997;42(2):243-6.

Swamy G, Schemitsch EH. Humeral head fracture dislocation: case report and review of the literature. *Journal of Trauma*. 1998;44(2):377-80.

## Clinical Criteria with Description

DXCat Number: MUS12

Etiology:

DXCat Label: Fracture: Radial Head and Neck

Trauma

### Stage Description

1.01	Fracture of the head and neck of the radius, without displacement
1.02	Fracture of the head and neck of the radius, with displacement involving $\geq 1/3$ of the articular surfaces
1.03	Fracture of the head and neck of the radius, with comminution
2.01	Open fracture of the head and neck of the radius
2.02	with osteomyelitis
2.03	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:217-218.

Fitch RD, Speer KP. Fractures and dislocations: fractures and dislocations of the shoulder, arm, and forearm. In: Sabiston DC, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1998:1408-1414.

## Clinical Criteria with Description

DXCat Number: MUS13

DXCat Label: Fracture: Radial Shaft, Ulna or Olecranon

Etiology:

Trauma

### Stage Description

1.01	Fracture of the radius and/or ulna or olecranon without displacement
1.02	with displacement
1.03	with dislocation of the radioulnar joint or Monteggia's fracture joint
1.04	with extensive soft tissue damage
2.01	Open fracture of the radius and/or ulna
2.02	with injury to the radial nerve or median nerve or ulnar nerve
2.03	with reflex sympathetic dystrophy
2.04	with Volkmann's ischemic contracture
2.05	with osteomyelitis
2.06	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Fitch RD, Speer KP. Fractures and dislocations: fractures and dislocations of the shoulder, arm, and forearm. In: Sabiston DC, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1998:1408-1414.

Stoffelen D, Broos P. Minimally displaced distal radius fractures: do they need plaster treatment? Journal of Trauma. 1998;44(3):503-5.

## Clinical Criteria with Description

DXCat Number: MUS14

DXCat Label: Fracture: Radius, Lower End

Etiology:

Trauma

### Stage Description

1.01	Fracture of the lower end of the radius with minimal displacement
1.02	Comminuted fracture of the lower end of the radius
1.03	Comminuted fracture of the lower end of the radius, running into the joint surfaces
1.04	Fracture of the lower end of the radius, with anterior subluxation of the carpus
2.01	Open fracture of the lower end of the radius
2.02	Fracture of the lower end of the radius, with entrapment neuropathy
2.03	with reflex sympathetic dystrophy
2.04	with tendon rupture
2.05	with Volkmann's ischemic contracture
2.06	with osteomyelitis
2.07	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:217-218.

Fitch RD, Speer KP. Fractures and dislocations: fractures and dislocations of the shoulder, arm, and forearm. In: Sabiston DC, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1998:1408-1414.

Kozin SH, Wood MB. Early soft-tissue complications after fractures of the distal part of the radius. Journal of Bone & Joint Surgery - American Volume. 1993;75(1):144-53.

## Clinical Criteria with Description

DXCat Number: MUS15

DXCat Label: Fracture: Tibia

Etiology:

Trauma

### Stage Description

1.01	Fracture of the tibial tuberosity
1.02	Fracture of the tibial eminence
1.03	Fracture of the lateral tibial condyles
1.04	Fracture of the medial tibial condyles
1.05	Linear fracture of the tibia without displacement
1.06	Linear fracture of the tibia with displacement
2.01	Fracture of the lateral and medial tibial condyles
2.02	Comminuted fractures of the tibia
2.03	Segmental fracture of the tibial shaft
2.04	Compound fracture of the tibia
2.05	with compartment syndrome or vascular or neurologic complications
2.06	with crush injuries to soft tissue
2.07	with osteomyelitis
2.08	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS15

DXCat Label: Fracture: Tibia

Etiology:

Trauma

### Stage Description

### References:

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Beaty JH, Kumar A. Fractures about the knee in children. *Journal of Bone & Joint Surgery - American Volume*. 1994;76(12):1870-80.

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Brown C, Henderson S, Moore S. Surgical treatment of patients with open tibial fractures. *AORN Journal*. 1996;63(5):875-96.

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Dowling J. Musculoskeletal disease: staged for rapid comprehension. *Year Book Medical Publishers Inc*. 1985:181-812.

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Watson JT. Treatment of unstable fractures of the shaft of the tibia. *Journal of Bone & Joint Surgery - American Volume*. 1994;76(10):1575-84.

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## Clinical Criteria with Description

DXCat Number: MUS16

Etiology:

DXCat Label: Fracture or Dislocation: Patella

Trauma

### Stage Description

1.01	Patellofemoral dislocation
1.02	Chronic patellofemoral dislocation
1.03	Transverse fracture of the patella
1.04	Comminuted fracture of the patella
2.01	Open fracture or dislocation of the patella

### References:

Dandy DJ. Chronic patellofemoral instability. *Journal of Bone & Joint Surgery - British Volume*. 1996;78(2):328-35.

Vail TP, McCollum DE. Fractures and dislocations: fractures of the pelvis, femur, and knee. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1432-1443.

## Clinical Criteria with Description

DXCat Number: MUS17

Etiology:

DXCat Label: Fracture or Sprain: Ankle

Trauma

### Stage Description

1.01	Ankle sprain
1.02	Nondisplaced malleolar fractures
1.03	Nondisplaced talar fractures
1.04	Displaced single malleolar fractures
1.05	Displaced bimalleolar fractures
1.06	Displaced trimalleolar fractures
1.07	Displaced talar fractures
1.08	Dislocation of the ankle
2.01	Fracture and dislocation of the ankle
2.02	Comminuted intra-articular ankle fracture
2.03	Open fracture or dislocation of the ankle
2.04	with injury to ankle tendons
2.05	with injury to the posterior tibial nerve
2.06	with injury to the posterior or anterior tibial artery
2.07	with osteomyelitis
3.01	with sepsis
3.02	with shock

## Clinical Criteria with Description

DXCat Number: MUS17

Etiology:

DXCat Label: Fracture or Sprain: Ankle

Trauma

Stage	Description
4.00	with death

### References:

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:190-191.

Levin LS, Garrett WE Jr. Fractures and dislocations: fractures of the tibia, fibula, ankle, and foot. In: Sabiston DC, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1998:1444-1451.

Michelson JD. Fractures about the ankle. Journal of Bone & Joint Surgery - American Volume. 1995;77(1):142-52.

## Clinical Criteria with Description

DXCat Number: MUS18

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Facial Bones

Trauma

### Stage Description

1.01	Sprain or dislocation, face and neck area
1.02	Fracture of facial bones without displacement of bones
1.03	Fracture of the lower third of the maxilla with displacement
1.04	Fracture of the middle third of the maxilla with displacement
1.05	Fracture of the upper third of the maxilla with displacement
2.01	Open dislocation or fracture of facial bones
2.02	with ruptured ocular globe
2.03	Closed fracture of larynx or trachea
2.04	Open fracture of larynx or trachea
2.05	with intracranial injury
2.06	with facial osteomyelitis
3.01	with meningitis
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS18

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Facial Bones

Trauma

**Stage Description**

### References:

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Aminoff MJ. Nervous system. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-973.

Fox LA. Images in clinical medicine. Three-dimensional CT diagnosis of maxillofacial trauma. N Engl J Med. 1993;329(2):102.

Ropper AH. Traumatic injuries of the head and spine. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2390-2398.

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## Clinical Criteria with Description

DXCat Number: MUS19

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Foot

Trauma

### Stage Description

1.01	Sprain or dislocation of the foot
1.02	Closed phalangeal fractures
1.03	Linear fracture without displacement
1.04	Fracture of the metatarsals with displacement
1.05	Fracture of the metatarsals with concomitant divergent diastasis of the first and second tarsometatarsal rays
1.06	Fracture of the metatarsals with tarsometatarsal dislocation
1.07	Fracture of navicular, cuboid, cuneiform bones, closed
2.01	Open phalangeal fracture or dislocation
2.02	Open fracture or dislocation of the metatarsals
2.03	Open fracture or dislocation of navicular, cuboid or cuneiform bones
2.04	Fracture or dislocation with injury to the medial or lateral plantar nerve or artery
2.05	with osteomyelitis
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS19

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Foot

Trauma

**Stage Description**

### References:

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Levin LS, Garrett WE Jr. Fractures and dislocations: fractures of the tibia, fibula, ankle, and foot. In: Sabiston DC, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1998:1444-1451.

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Mann RA, Prieskorn D, Sobel M. Mid-tarsal and tarsometatarsal arthrodesis for primary degenerative osteoarthritis or osteoarthritis after trauma. Journal of Bone & Joint Surgery - American Volume. 1996;78(9):1376-85.

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## Clinical Criteria with Description

DXCat Number: MUS20

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Hip or Pelvis

Trauma

### Stage Description

1.01	Sprain of pelvis, hip or thigh
1.02	Fracture or dislocation of hip or pelvis without break in continuity of the pelvic ring
1.03	Fracture or dislocation of the hip with a single break in pelvic ring
2.01	Double break in pelvic ring
2.02	Malgaigne's fracture or straddle fracture
2.03	Multiple fractures of the pelvis including pelvic ring
2.04	Open fracture of the pelvis or hip
2.05	with thrombophlebitis
2.06	with rupture of large pelvic veins
2.07	with injury to uterus or ovaries or colonic perforation or neurological injury or urological injury
2.08	with rupture of major pelvic arteries
3.01	with pulmonary embolism
3.02	with respiratory failure
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS20

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Hip or Pelvis

Trauma

### Stage Description

### References:

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Dowling J. Musculoskeletal disease: Staged for Rapid Comprehension. Year Book Medical Publishers Inc. 1985:135-139.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.

Koraitim MM. Pelvic fracture urethral injuries: evaluation of various methods of management. Journal of Urology. 1996;156(4):1288-91.

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Resnick NM. Geriatric medicine. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:37-46.

## Clinical Criteria with Description

DXCat Number: MUS21

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Humerus (Head) or Shoulder

Trauma

### Stage Description

1.01	Sprains of shoulder and upper arm
1.02	Closed dislocation of the head of the humerus, acromioclavicular joint or shoulder region
1.03	Anterior, subcoracoid, subglenoid, posterior or superior dislocation of the head of the humerus
1.04	Closed fracture of scapula or clavicle
1.05	Closed fracture of the head or neck of humerus
1.06	Closed fracture of greater or lesser tuberosity of humerus
1.07	Fracture of the head or neck of humerus with displacement of fragments or segment
1.08	Fracture of the head and neck of the humerus with fracture of the greater tuberosity and unimpacted fracture of the surgical neck
2.01	Open dislocation or fracture of clavicle or scapula
2.02	Open dislocation of the shoulder
2.03	Open fracture of the head or neck of the humerus
2.04	Open fracture of the head or neck of humerus with displacement of fragments or segment
2.05	with injury to the axillary artery or vein
2.06	with injury to the brachial plexus or axillary nerve
2.07	with osteomyelitis
2.08	with gangrene
3.01	with sepsis

## Clinical Criteria with Description

DXCat Number: MUS21

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Humerus (Head) or Shoulder

Trauma

Stage	Description
3.02	with shock
4.00	with death

### References:

Bernstein J, Adler LM, Blank JE, Dalsey RM, Williams GR, Iannotti JP. Evaluation of the Neer system of classification of proximal humeral fractures with computerized tomographic scans and plain radiographs. *Journal of Bone & Joint Surgery - American Volume*. 1996;78(9):1371-5.

Dowling J. Musculoskeletal disease: staged for rapid comprehension. *Year Book Medical Publishers Inc*. 1985:198-199.

Kontakis GM, Galanakis IA, Steriopoulos KA. Dislocation of the shoulder and ipsilateral fracture of the humeral shaft: case reports and literature review. *Journal of Trauma*. 1995;39(5):990-2.

Ogawa K, Ui M. Humeral shaft fracture sustained during arm wrestling: report on 30 cases and review of the literature. *Journal of Trauma*. 1997;42(2):243-6.

Swamy G, Schemitsch EH. Humeral head fracture dislocation: case report and review of the literature. *Journal of Trauma*. 1998;44(2):377-80.

## Clinical Criteria with Description

DXCat Number: MUS22

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Wrist or Hand or Fingers

Trauma

### Stage Description

1.01	Sprain or closed dislocation of wrist, hand, or fingers
1.02	Closed fracture of phalanx or phalanges
1.03	Closed fracture of metacarpal bone(s)
1.04	Fracture of the carpal bone(s) without displacement
1.05	Fracture of the carpal bone(s) with proximal pole fracture
1.06	Fracture of the carpal navicular waist
1.07	Fracture of the carpal bone(s) with lunate bone subluxation or dislocation
2.01	Open phalangeal dislocation or fracture
2.02	Open dislocation or fracture of metacarpal bone(s)
2.03	Open fracture of the carpal bone(s)
2.04	Fracture of the carpal bone(s) with damage to the median nerve
2.05	with osteomyelitis
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS22

Etiology:

DXCat Label: Fracture, Dislocation, or Sprain: Wrist or Hand or Fingers

Trauma

**Stage Description**

### References:

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Goldner RD, Goldner JL. Fractures and dislocations: fractures and dislocations of the hand. In: Sabiston DC, ed. Sabiston Textbook of Surgery. 15th ed. Philadelphia, PA: WB Saunders; 1998:1419-1431.

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Ohioenoya D, Whitwell DJ. Occult scaphoid fracture: need to avoid complacency. Journal of Trauma. 1996;41(6):1054-5.

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## Clinical Criteria with Description

DXCat Number: MUS23

DXCat Label: Gout

Etiology:

Metabolic

Stage	Description
1.01	Hyperuricemia
1.02	Acute gouty arthritis
2.01	Chronic gouty arthritis
2.02	with renal urate stones
2.03	with pyelonephritis
3.01	with renal failure
3.02	with shock
4.00	with death

### References:

Barth WF. Office evaluation of the patient with musculoskeletal complaints. *American Journal of Medicine.* 1997;102(1A):3S-10S.

Emmerson BT. The management of gout. *N Engl J Med.* 1996;334(7):445-51.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:774-824.

Wortmann RL. Gout and other disorders of purine metabolism. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:2158-2166.

## Clinical Criteria with Description

DXCat Number: MUS24

DXCat Label: Hallux Deformities

Etiology:

Congenital; Degenerative; Trauma

Stage	Description
1.01	Hallux valgus or bunion
1.02	Hallux valgus encroaching upon adjacent toes
1.03	Hallux valgus with inflamed overlying bursa
1.04	Hallux valgus with infection
1.05	Hallux rigidus
1.06	Hallux varus
1.07	Hallux malleus

### References:

Brandt KD. Osteoarthritis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1935-1941.

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:119-121.

## Clinical Criteria with Description

DXCat Number: MUS25

DXCat Label: Herniated Intervertebral Disc

Etiology:

Trauma

### Stage Description

1.01	Asymptomatic prolapse of the intervertebral disc
1.02	Symptomatic prolapse of the intervertebral disc
2.01	with loss of bladder or bowel control
2.02	with cauda equina syndrome or conus medullaris syndrome
2.03	with paraplegia
2.04	with quadriplegia
2.05	with pneumonia (aspiration or bacterial)
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Boden SD. The use of radiographic imaging studies in the evaluation of patients who have degenerative disorders of the lumbar spine. *Journal of Bone & Joint Surgery - American Volume*. 1996;78(1):114-24.

Brandt KD. Osteoarthritis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1935-1941.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:774-824.

## Clinical Criteria with Description

DXCat Number: MUS26

DXCat Label: Infectious Arthritis

Etiology:

Infection

Stage	Description
2.01	Acute infectious arthritis
2.02	with contiguous osteomyelitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Goldenberg DL. Septic arthritis Lancet. 1998;351(9097):197-202.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.

Thaler SJ, Maguire JH. Infectious arthritis and injections of prosthetic joints. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1944-1949.

## Clinical Criteria with Description

DXCat Number: MUS27

Etiology:

DXCat Label: Injury, Chest Wall

Trauma

### Stage Description

1.01	Closed trauma to the chest wall or closed trauma to the breast or chest wall sprain or dislocation of sternum or ribs
1.02	Closed fracture of chest wall, ribs or sternum without displacement
1.03	Open wound of chest wall, ribs or sternum
2.01	Open fracture or dislocation of the chest wall or rib or sternum
2.02	Fracture of the ribs or sternum with displacement of bone or flail chest
2.03	with subcutaneous emphysema
2.04	with pneumothorax or hemothorax
2.05	with tension pneumothorax
2.06	with laceration of the thoracic duct
2.07	with laceration of the diaphragm
2.08	with laceration of trachea, bronchi, lung or esophagus
2.09	with laceration of the heart, great vessels or cardiac tamponade
3.01	with respiratory failure
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS27

DXCat Label: Injury, Chest Wall

Etiology:

Trauma

### Stage Description

### References:

Light RW. Disorders of the pleura, mediastinum, and diaphragm. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1472-1476.

Prete R, Chilcott M. Blunt trauma to the heart and great vessels. N Engl J Med. 1997;336(9):626-32.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-33.

## Clinical Criteria with Description

DXCat Number: MUS28

DXCat Label: Injury, Knee, Ligamentous

Etiology:

Trauma

### Stage Description

1.01	Partial tear of knee ligament
1.02	Complete rupture of the lateral collateral ligament
1.03	Complete rupture of the medial collateral ligament
1.04	Complete rupture of the anterior cruciate ligament
1.05	Complete rupture of the posterior cruciate ligament
2.01	Collateral ligamentous tear with meniscus tear
2.02	Cruciate ligamentous tear with meniscus tear
2.03	Ligamentous tear and meniscus tear and torn knee capsule

### References:

Clasby L, Young MA. Management of sports-related anterior cruciate ligament injuries. *AORN Journal*. 1997;66(4):609-30.

Vail TP, McCollum DE. Fractures and dislocations: fractures of the pelvis, femur, and knee. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1432-1443.

## Clinical Criteria with Description

DXCat Number: MUS29

DXCat Label: Injury, Knee, Semilunar Cartilages

Etiology:

Trauma

### Stage Description

1.01	Isolated peripheral tear of the medial or lateral meniscus
1.02	Torn discoid medial or lateral meniscus
1.03	Torn cystic medial or lateral meniscus
1.04	Tear of the medial or lateral meniscus with displacement of the internal fragment
1.05	Tear of the anterior horn of the lateral or medial meniscus
1.06	Tear of the posterior horn of the lateral or medial meniscus
2.01	Tear of the medial or lateral meniscus with tear of the medial collateral ligament
2.02	Tear of the medial or lateral meniscus with tear of the cruciate ligament
2.03	Ligamentous tear and meniscus tear and torn knee capsule

### References:

Clasby L, Young MA. Management of sports-related anterior cruciate ligament injuries. *AORN Journal*. 1997;66(4):609-30.

Vail TP, McCollum DE. Fractures and dislocations: fractures of the pelvis, femur, and knee. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1432-1443.

## Clinical Criteria with Description

DXCat Number: MUS30

Etiology:

DXCat Label: Injury, Open Wound, or Blunt Trauma: Lower Extremity

Trauma

### Stage Description

1.01	Superficial injury or contusion of the lower extremity not penetrating beyond the subcutaneous tissue
1.02	Avulsion wound of the lower extremity not penetrating beyond the subcutaneous tissue
1.03	with infection
1.04	with cellulitis
2.01	Open wound of the lower extremity extending into the deep fascia or crush injury of the lower extremity
2.02	with abscess formation
2.03	with laceration of muscles or tendons
2.04	with injury or laceration of the nerves of the lower extremity
2.05	with trauma to blood vessels of the lower extremity
2.06	Traumatic amputation involving the lower extremity
2.07	with osteomyelitis
2.08	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS30

Etiology:

DXCat Label: Injury, Open Wound, or Blunt Trauma: Lower Extremity

Trauma

**Stage Description**

### References:

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Bowyer GW, Rossiter ND. Management of gunshot wounds of the limbs. *Journal of Bone & Joint Surgery - British Volume*. 1997;79(6):1031-6.

Cooper C. The crippling consequences of fractures and their impact on quality of life. *American Journal of Medicine*. 1997;103(2A):12S-17S.

Jurkovich GJ, Carrico CJ. Trauma: management of the acutely injured patient. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:296-340.

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## Clinical Criteria with Description

DXCat Number: MUS31

Etiology:

DXCat Label: Injury, Open Wound, or Blunt Trauma: Upper Extremity

Trauma

### Stage Description

1.01	Superficial injury or contusion of the upper extremity not penetrating beyond the subcutaneous tissue
1.02	Avulsion wound of the upper extremity not penetrating beyond the subcutaneous tissue
1.03	with infection
1.04	with cellulitis
2.01	Open wound of the upper extremity extending into the deep fascia or crush injury of upper extremity
2.02	with abscess formation
2.03	with laceration of muscles or tendons
2.04	with trauma to the upper extremity nerves
2.05	with trauma to the blood vessels of the upper extremity
2.06	Traumatic amputation involving upper extremity
2.07	with osteomyelitis
2.08	with gangrene
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS31

Etiology:

DXCat Label: Injury, Open Wound, or Blunt Trauma: Upper Extremity

Trauma

### Stage Description

### References:

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Bowyer GW, Rossiter ND. Management of gunshot wounds of the limbs. *Journal of Bone & Joint Surgery - British Volume*. 1997;79(6):1031-6.

Jurkovich GJ, Carrico CJ. Trauma: management of the acutely injured patient. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:296-340.

Lillegard WA, Zukowski C, Butcher J. Common upper-extremity injuries. *Archives of Family Medicine*. 1996;5(3):159-68.

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## Clinical Criteria with Description

DXCat Number: MUS32

DXCat Label: Muscular Dystrophy

Etiology:

Genetic (or hereditary)

### Stage Description

1.01	Distal muscular dystrophy
1.02	Becker muscular dystrophy or limb-girdle dystrophy
1.03	Myotonic dystrophy or ocular muscular dystrophy or fascioscapulohumeral dystrophy or congenital muscular dystrophy or oculopharyngeal muscular dystrophy
2.01	Duchennic type muscular dystrophy
2.02	with hypertension
2.03	with mental retardation
2.04	with pneumonia
2.05	with cardiomyopathy or cardiac conduction abnormalities
3.01	with congestive heart failure
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Aminoff MJ. Nervous system. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-973.

Anderson JR. Recent advances in muscular dystrophies and myopathies. Journal of Clinical Pathology. 1995;48(7):597-601.

Mendell JR, Griggs RC, Ptacek LJ. Diseases of muscle. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2473-2483.

Worton R. Muscular dystrophies: diseases of the dystrophin-glycoprotein complex. Science. 1995;270(5237):755-6.

## Clinical Criteria with Description

DXCat Number: MUS33

Etiology:

DXCat Label: Neoplasm, Malignant: Primary Bone

Neoplasm

### Stage Description

0.00	History of primary malignant neoplasm of bone
1.01	Osteosarcoma or osteogenic sarcoma or ossifying parosteal sarcoma or peripheral chondrosarcoma or medullary fibrosarcoma or osteoclastoma or Ewing's sarcoma of the long bones or reticulum cell sarcoma or lymphosarcoma or clasmocytoma or monocytoma
1.02	Chondrosarcoma or Ewing's sarcoma of the axial skeleton or endothelial myeloma
2.01	Osteosarcoma with Paget's disease of the bones or parosteal osteosarcoma Grade III or chondrosarcoma with skeletal enchondromatosis or diffuse fibrosarcoma or giant cell tumor in soft tissues
2.02	Primary malignant bone tumors with tumor involving regional lymph nodes
3.01	Primary malignant bone tumors with metastasis to other bones
3.02	Primary malignant bone tumors with metastasis to the lungs
3.03	Primary malignant bone tumors with metastasis to the central nervous system
3.04	Primary malignant bone tumors with shock
4.00	with death

### References:

- Abdu WA, Provencher M. Primary bone and metastatic tumors of the cervical spine. *Spine*. 1998;23:2767-77.
- Bridwell KH, DeWald RL. The Textbook of Spinal Surgery, Second Edition. In: Lippincott-Raven. Philadelphia, PA; 1997:1957-1982, 2007-2050.
- Maher de Leon ME, Schnell S, Rozental JM. Tumors of the spine and spinal cord. *Seminars in Oncology Nursing*. 1998;14:43-52.
- Marcuzzi A, Maiorana A, Adani R, Spina V, Busa R, Caroli A. Osteosarcoma of the scaphoid. A case report and review of the literature. *Journal of Bone & Joint Surgery - British Volume*. 1996;78(5):699-701.
- Peyser AB, Makley JT, Callear CC, Brackett B, Carter JR, Abdul-Karim FW. Osteoma of the long bones and the spine. A study of eleven patients and a review of the literature. *Journal of Bone & Joint Surgery -American Volume*. 1996;78(8):1172-80.
- Scully SP, Harrelsoon JM. Fractures and dislocations: infections and neoplasms of bone. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1458-1469.

## Clinical Criteria with Description

DXCat Number: MUS34

DXCat Label: Osteoarthritis

Etiology:

Degenerative; Immune; Metabolic; Trauma

### Stage Description

1.01	Osteoarthritis of the hands
1.02	Osteoarthritis of the lumbar spine
1.03	Osteoarthritis of the cervical or thoracic spine
1.04	Osteoarthritis of the ankle and foot
1.05	Osteoarthritis of the elbow
1.06	Osteoarthritis of the shoulder area
2.01	with cervical radiculopathy
2.02	with lumbar radiculopathy
2.03	with compression of the metacarpophalangeal joints or compression of the interphalangeal joints
2.04	with compression of the knee joints or hip joints

### References:

- Brandt KD. Osteoarthritis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1935-1941.
- Creamer P, Hochberg MC. Osteoarthritis. Lancet. 1997;350(9076):503-8.
- Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:32-34.
- Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.
- Lane NE, Thompson JM. Management of osteoarthritis in the primary-care setting: an evidence-based approach to treatment. American Journal of Medicine. 1997;103(6A):25S-30S.

## Clinical Criteria with Description

DXCat Number: MUS35

DXCat Label: Osteochondrodysplasia

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Osteochondrodysplasia
2.01	with hydrocephalus
2.02	with mental retardation
3.01	with respiratory failure
3.02	with coma
3.03	with shock
4.00	with death

### References:

Krane SM, Schiller AL. Polyostotic fibrous dysplasia, hyperostosis and other disorders of bone and metabolism. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2269-2277.

Newbury-Ecob R. Atelosteogenesis type 2. Journal of Medical Genetics. 1998;35(1):49-53.

Ozaki T, Lindner N, Blasius S. Dedifferentiated chondrosarcoma in Albright syndrome. A case report and review of the literature. Journal of Bone & Joint Surgery - American Volume. 1997;79(10):1545-51.

## Clinical Criteria with Description

DXCat Number: MUS36

DXCat Label: Osteomalacia

Etiology:

Metabolic; Nutritional

Stage	Description
1.01	Osteomalacia
2.01	with pathologic fracture

### References:

Fitzgerald PA. Endocrinology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1031-1095.

Losowsky MS, Hussaini SH. Bone disease after liver transplantation Gut. 1996;39(4):505-7.

Wilkin TJ. Changing perceptions in osteoporosis BMJ. 1999;318(7187):862-4.

## Clinical Criteria with Description

DXCat Number: MUS37

DXCat Label: Osteomyelitis

Etiology:

Infection

Stage	Description
1.01	Intervertebral disc infection
1.02	Vertebral osteomyelitis
2.01	Osteomyelitis
2.02	with extension into soft tissues
2.03	with sequestrum formation
2.04	with epidural abscess
2.05	with paraspinal abscess
2.06	with pathologic fracture
2.07	involving the spinal column
2.08	with paraplegia or paraparesis
3.01	with sepsis
3.02	with respiratory failure
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS37

Etiology:

DXCat Label: Osteomyelitis

Infection

### Stage Description

### References:

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Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.

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Lew DP, Waldvogel FA. Osteomyelitis. N Engl J Med. 1997;336(14):999-1007.

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Maguire JH. Osteomyelitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:824-827.

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## Clinical Criteria with Description

DXCat Number: MUS38

DXCat Label: Osteoporosis

Etiology:

Degenerative; Genetic (or hereditary); Metabolic; Nutritional

### Stage Description

1.01	Osteopenia
1.02	Osteoporosis
2.01	Osteoporosis with fracture of the lumbar vertebra or hip or extremities
2.02	Osteoporosis with fracture of the thoracic vertebra
2.03	Osteoporosis with fracture of the cervical vertebra
3.01	with renal failure
3.02	with shock
4.00	with death

### References:

Deal CL. Osteoporosis: prevention, diagnosis and management. *American Journal of Medicine*. 1997;102(1A): 35S-39S.

Fitzgerald PA. Endocrinology. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1031-1095.

Krane SM, Holick MF. Metabolic bone disease. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2247-2259.

Wasnich RD. Epidemiology of osteoporosis. In: Favus MJ ed. *Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism*. 3rd ed. Philadelphia, PA. Lippincott-Raven; 1996:249-251.

## Clinical Criteria with Description

DXCat Number: MUS39

DXCat Label: Progressive Systemic Sclerosis

Etiology:

Immune

### Stage Description

1.01	Progressive systemic sclerosis, scleroderma or CREST syndrome
1.02	with flexion contractures of the hands or arthralgias
2.01	with trophic ulcers of the hands
2.02	with gastroesophageal reflux or pneumatosis intestinalis
2.03	with biliary cirrhosis or jaundice
2.04	with lung fibrosis
2.05	with cardiac conduction abnormalities
2.06	with hypertension
3.01	with renal failure
3.02	with pulmonary hypertension
3.03	with congestive heart failure
3.04	with respiratory failure
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS39

Etiology:

DXCat Label: Progressive Systemic Sclerosis

Immune

### Stage Description

### References:

Anonymous. Systemic sclerosis: current pathogenetic concepts and future prospects for targeted therapy. *Lancet*. 1996;347(9013):1453-8.

Gilliland BC. Systemic sclerosis (scleroderma). In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1888-1896.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:774-824.

Herrick AL, Clark S. Quantifying digital vascular disease in patients with primary Raynaud's phenomenon and systemic sclerosis. *Annals of the Rheumatic Diseases*. 1998;57(2):70-8

Mullinax F. Chimerism in scleroderma. *Lancet*. 1998;351(9119):1886-1997.

## Clinical Criteria with Description

DXCat Number: MUS40

DXCat Label: Rheumatoid Arthritis

Etiology:

Immune

Stage	Description
1.01	Rheumatoid arthritis
1.02	with uveitis
1.03	with fusion of metacarpophalangeal or interphalangeal joint spaces
1.04	with carpal tunnel syndrome
2.01	Juvenile onset rheumatoid arthritis
2.02	with anemia
2.03	with Felty's syndrome
2.04	with pneumoconiosis or interstitial fibrosis
2.05	with cardiac conduction abnormalities or pericarditis or cardiomyopathy
3.01	with vasculitides
3.02	with amyloidosis
3.03	with congestive heart failure
3.04	with respiratory failure
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS40

DXCat Label: Rheumatoid Arthritis

Etiology:

Immune

### Stage Description

### References:

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Alarcon GS. Predictive factors in rheumatoid arthritis. *American Journal of Medicine*. 103(6A):19S-24S, 1997 Dec 29.

Hellmann DB. "Arthritis & Musculoskeletal Disorders." In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange, 1998:774-824.

Lipsky PE. "Rheumatoid Arthritis." In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*, 14th Ed. New York: McGraw-Hill, 1998:1880-1888.

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Wolfe F. The prognosis of rheumatoid arthritis: assessment of disease activity and disease severity in the clinic. *American Journal of Medicine*. 103(6A):12S-18S, 1997 Dec 29.

## Clinical Criteria with Description

DXCat Number: MUS41

DXCat Label: Scoliosis of the Lumbar Spine

Etiology:

Congenital; Degenerative; Idiopathic

### Stage Description

1.01	Dysplastic scoliosis
1.02	Marfan's Scoliosis
1.03	with skeletal dysplasia
1.04	with osteogenesis imperfecta
1.05	with familial dysautonomia
1.06	Congenital scoliosis
1.07	Infantile and juvenile scoliosis
1.08	Adolescent idiopathic scoliosis
1.09	Paralytic scoliosis
1.10	Degenerative scoliosis
2.01	Scoliosis of the lumbar spine of $\geq 30$ degrees and $\leq 50$ degrees
2.02	Scoliosis of the lumbar spine of $\geq 50$ degrees [x-ray report]
2.03	Scoliosis of the lumbar spine with cauda equina syndrome

### References:

Anonymous. Screening for adolescent idiopathic scoliosis. Review article. US Preventive Services Task Force. JAMA. 1993;269(20):2667-72.

Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:97-99.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.

Lonstein JE. Adolescent idiopathic scoliosis. Lancet. 1994;344(8934):1407-12.

## Clinical Criteria with Description

DXCat Number: MUS42

DXCat Label: Scoliosis of the Thoracic Spine

Etiology:

Congenital; Degenerative; Idiopathic

### Stage Description

1.01	Dysplastic scoliosis
1.02	Marfan's scoliosis
1.03	with skeletal dysplasia
1.04	with osteogenesis imperfecta
1.05	with familial dysautonomia
1.06	Congenital scoliosis
1.07	Infantile and juvenile scoliosis
1.08	Adolescent idiopathic scoliosis
1.09	Paralytic scoliosis
1.10	Degenerative scoliosis
2.01	Scoliosis of the thoracic spine of $\geq 30$ degrees and $< 50$ degrees
2.02	Scoliosis of the thoracic spine of $\geq 50$ degrees
2.03	with cauda equina syndrome
2.04	with hypoxemia
3.01	with cor pulmonale
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: MUS42

DXCat Label: Scoliosis of the Thoracic Spine

Etiology:

Congenital; Degenerative; Idiopathic

### Stage Description

### References:

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Anonymous. Screening for adolescent idiopathic scoliosis. Review article. US Preventive Services Task Force JAMA. 1993;269(20):2667-72.

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Dowling J. Musculoskeletal disease: staged for rapid comprehension. Year Book Medical Publishers Inc. 1985:97-99.

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Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:774-824.

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Lonstein JE. Adolescent idiopathic scoliosis. Lancet. 1994;344(8934):1407-12.

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## Clinical Criteria with Description

DXCat Number: MUS43

DXCat Label: Spondylitis, Ankylosing

Etiology:

Immune

### Stage Description

1.01	Ankylosing spondylitis
2.01	with cervical fusion or atlantoaxial subluxation
2.02	with uveitis
2.03	with pulmonary fibrosis
2.04	with cardiac conduction abnormalities
2.05	with cauda equina syndrome
2.06	with quadriparesis
3.01	with renal failure
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Archer JR. Ankylosing spondylitis, IgA, and transforming growth factors. *Annals of the Rheumatic Diseases*. 1995;54(7):544-6.

Bridwell KH, DeWald RL. *The Textbook of Spinal Surgery, Second Edition*. Lippincott-Raven, Philadelphia, PA, 1997, pp. 1109-1158.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:774-824.

Taurog JD, Lipsky PE. Ankylosing spondylitis, reactive arthritis, and undifferentiated spondyloarthropathy. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York: McGraw-Hill; 1998:1904-1910.

van der Linden S, van der Heijde D. Ankylosing spondylitis. Clinical features. *Rheumatic Diseases Clinics of North America*. 1998;24:663-76.

## Clinical Criteria with Description

DXCat Number: MUS44

DXCat Label: Systemic Lupus Erythematosus

Etiology:

Immune

### Stage Description

1.01	Systemic lupus erythematosus
2.01	with lupus anticoagulant or deep vein thrombosis
2.02	with pneumonia or lupus pneumonitis
2.03	with pleural effusion
2.04	with lupus nephritis
2.05	with peritonitis
2.06	with pericarditis
3.01	with renal failure
3.02	with endocarditis or myocarditis
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

### References:

Hahn BH. Antibodies to DNA. *N Engl J Med.* 1998;338(19):1359-68.

Hahn BH. Systemic lupus erythematosus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1874-1880.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:774-824.

Sathananthan R, David J. The adolescent with rheumatic disease. *Archives of Disease in Childhood.* 1997;77(4):355-8.

## Clinical Criteria with Description

DXCat Number: MUS45

DXCat Label: Vasculitis

Etiology:

Idiopathic; Immune

Stage	Description
1.01	Vasculitis
2.01	with myositis
2.02	with neuropathy
2.03	with pulmonary involvement
2.04	with cardiac conduction abnormalities
2.05	with gastrointestinal involvement
3.01	with renal failure
3.02	with cerebrovascular accident
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Calabrese LH, Duna GF, Lie JT. Vasculitis in the central nervous system. *Arthritis & Rheumatism*. 40(7):1189-201, 1997 Jul.

Hellmann DB. "Arthritis & Musculoskeletal Disorders." In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange, 1998:774-824.

## Clinical Criteria with Description

DXCat Number: MUS80

Etiology:

DXCat Label: Anomaly: Musculoskeletal System

Congenital

Stage	Description
1.01	Congenital dislocations and anomalies of bone, soft tissue anomalies, spondylolisthesis

### References:

## Clinical Criteria with Description

DXCat Number: MUS81

Etiology:

DXCat Label: Injury: Other and Ill-Defined Musculoskeletal Sites

Trauma

Stage	Description
1.01	Closed nonspecific fracture or multiple fractures, internal injury, or late effects of musculoskeletal trauma
2.01	Open nonspecific sprain or fracture, internal injury

### References:

## Clinical Criteria with Description

DXCat Number: MUS82

Etiology:

DXCat Label: Neoplasm, Benign: Musculoskeletal System or Connective Tissue

Neoplasm

Stage	Description
1.01	Benign neoplasm of musculoskeletal system

### References:

## Clinical Criteria with Description

DXCat Number: MUS83

Etiology:

DXCat Label: Other Arthropathies, Bone and Joint Disorders

Stage	Description
1.01	Crystal arthropathies, Kaschin-Beck disease, allergic, climacteric, transient, and polyarthritis, polymyalgia rheumatica
2.01	Pathological or recurrent dislocation or derangement of multiple joints or infections of bone and joints

### References:

## Clinical Criteria with Description

DXCat Number: MUS84

Etiology:

DXCat Label: Other Disorders of Connective Tissue

Stage	Description
1.01	Polymyositis, ganglion cysts, synovial and tendon ruptures

References:

## Clinical Criteria with Description

DXCat Number: MUS85

Etiology:

DXCat Label: Other Spinal and Back Disorders

Stage	Description
1.01	Lumbago, sciatica, torticollis, other back symptoms and disorders, curvatures of spine
1.02	Spinal stenosis

References:

## Clinical Criteria with Description

DXCat Number: NEU01

DXCat Label: Amyotrophic Lateral Sclerosis

Etiology:

Idiopathic

### Stage Description

1.01	Early lumbar amyotrophic lateral sclerosis
1.02	Cervicothoracic amyotrophic lateral sclerosis
2.01	Advanced lumbar amyotrophic lateral sclerosis
2.02	with early craniobulbar involvement
3.01	with pneumonia
3.02	with sepsis
3.03	with respiratory failure
4.00	with death

### References:

- Aminoff MJ. Nervous system. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-973.
- Brown Jr RH. Amyotrophic lateral sclerosis. Insights from genetics. Archives of Neurology. 1997;54(10):1246-50.
- Brown, Jr RH. The motor neuron disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2368-2372.
- Radunovic A, Leigh PN. Cu/Zn superoxide dismutase gene mutations in amyotrophic lateral sclerosis: correlation between genotype and clinical. Journal of Neurology, Neurosurgery & Psychiatry. 1996;61(6):565-72.
- Wokke J. Riluzole. Lancet. 1996;348(9030):795-9.

## Clinical Criteria with Description

DXCat Number: NEU02

DXCat Label: Carpal Tunnel Syndrome

Etiology:

Trauma

### Stage Description

Stage	Description
1.01	Carpal tunnel syndrome
1.02	with abductor pollicis brevis muscle or thenar eminence weakness or atrophy

### References:

Dawson DM. Entrapment neuropathies of the upper extremities. *N Engl J Med.* 1993;329(27):2013-8.

Gilliland BC. Relapsing polychondritis and other arthritides. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1951-1965.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:774-824.

Yassi A. Repetitive strain injuries. *Lancet.* 1997;349(9056):943-7.

## Clinical Criteria with Description

DXCat Number: NEU03

DXCat Label: Cerebral Palsy

Etiology:

Congenital; Genetic (or hereditary)

### Stage Description

1.01	Cerebral palsy manifested as spastic monoplegia
2.01	manifested as choreoathetosis
2.02	manifested as spastic hemiplegia
2.03	manifested as spastic diplegia
2.04	manifested as spastic quadriplegia
2.05	with spastic and dyskinetic features
2.06	with mental retardation
2.07	with grand mal seizures
2.08	with aspiration pneumonia
3.01	with sepsis
3.02	with respiratory failure
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: NEU03

DXCat Label: Cerebral Palsy

Etiology:

Congenital; Genetic (or hereditary)

### Stage Description

### References:

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Eicher PS, Batshaw ML. Cerebral palsy. *Pediatric Clinics of North America*. 1993;40:537-551.

Haslam RHA. The nervous system/cerebral palsy. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*, 15th ed. Philadelphia, PA: WB Saunders; 1996:1713-1714.

Kuban KC, Levitan A. Cerebral palsy. *N Engl J Med*. 1994;330:188-95.

Moe PG, Seay AR. Neurologic and muscular disorders/cerebral palsy. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:700-703.

Russman BS. Disorders of motor execution I: cerebral palsy. In: David RB, ed. *Child and Adolescent Neurology*. St. Louis, MO: Mosby; 1998:453-468.

## Clinical Criteria with Description

DXCat Number: NEU04

DXCat Label: Cerebrovascular Disease

Etiology:

Degenerative; Genetic (or hereditary)

### Stage Description

1.01	Cerebral atherosclerosis or cerebral aneurysm or vascular malformation
2.01	Transient ischemic attack or occlusion or stenosis of precerebral arteries
3.01	Intracranial hemorrhage or intracranial infarction or nonpyogenic thrombosis of intracranial venous sinus or Moyamoya disease
3.02	Cerebrovascular accident with cranial nerve involvement
3.03	Cerebrovascular accident with cerebellar or pyramidal tract signs
3.04	Cerebrovascular accident with hemiparesis or hemiplegia
3.05	Cerebrovascular accident with quadriplegia
3.06	with respiratory failure
3.07	Cerebrovascular accident with coma
4.00	Cerebrovascular accident with death

### References:

Abram HS, Lenn NJ and Haas RJ. Vascular disease. In: David RB, ed. Child and Adolescent Neurology. 1998:271-293.

Aminoff MJ. Transient ischemic attack. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. 1998:927-936.

Easton JD, Hauser SH, Martin JB. Cerebrovascular diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2325-2348.

Haslam, RHA. The nervous system/acute stroke syndromes. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1728-1730.

## Clinical Criteria with Description

DXCat Number: NEU05

Etiology:

DXCat Label: Dementia: Primary Degenerative (Alzheimer's or Pick's Disease)

Degenerative; Idiopathic

### Stage Description

1.01	Primary degenerative dementia (Alzheimer's disease or Pick's disease)
1.02	Early dementia
2.01	Midstage dementia
2.02	with invalidism
2.03	with decubitus ulcer
3.01	with sepsis
3.02	with respiratory failure
3.03	with coma
3.04	with shock
4.00	with death

### References:

- Aminoff MJ. Huntington's disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:946.
- Bird TD. Alzheimer's disease and other primary dementias. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2348-2356.
- Lendon CL, Ashall F, Goate AM. Exploring the etiology of Alzheimer disease using molecular genetics. JAMA. 1997;277(10):825-831.
- Selkoe DJ. Alzheimer's disease: genotypes, phenotypes, and treatments. Science. 1997;275(5300):630-631.

## Clinical Criteria with Description

DXCat Number: NEU06

Etiology:

DXCat Label: Disease of the Nervous System Secondary to Implants or Grafts

Trauma

Stage	Description
1.01	Disease of the nervous system secondary to implanted devices or grafts
1.02	Reaction to spinal or lumbar puncture or from surgically implanted device
2.01	with infection due to nervous system device implantation or graft
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

## Clinical Criteria with Description

DXCat Number: NEU07

DXCat Label: Epilepsy

Etiology:

Idiopathic

### Stage Description

1.01	Partial seizures with elementary symptomatology
1.02	Partial seizures with complex symptomatology
2.01	Absence seizures
2.02	Tonic clonic seizures
3.01	Status epilepticus
3.02	with respiratory failure
4.00	with death

### References:

Aminoff MJ. Epilepsy. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:921-926.

Lowenstein DH. Seizures and epilepsy. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2311-2356.

## Clinical Criteria with Description

DXCat Number: NEU08

DXCat Label: Guillain-Barre Syndrome

Etiology:

Idiopathic; Infection

### Stage Description

2.01	Guillain-Barre syndrome
2.02	with ascending paralysis
2.03	with cranial nerve palsy
3.01	with arrhythmias or bundle branch block
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Aminoff MJ. Nervous system. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-973.

Asbury AK. Diseases of the peripheral nervous system. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2457-2469.

Dalakas MC. Intravenous immune globulin therapy for neurologic diseases. Annals of Internal Medicine. 1997;126(9):721-30.

Tuttle J, Chen RT, Rantala H, Cherry JD, Rhodes PH, Hadler S. The risk of Guillain-Barre syndrome after tetanus-toxoid-containing vaccines in adults and children in the United States. American Journal of Public Health. 1997;87(12):2045-8.

## Clinical Criteria with Description

DXCat Number: NEU09

DXCat Label: Headache

Etiology:

Idiopathic

### Stage Description

1.01	Muscle tension headache
1.02	Migraine headache
1.03	Cluster headache
2.01	Acute confusional or dysphoric migraine
2.02	Vertebrobasilar migraine
2.03	Migraine headache with retinal ischemia
2.04	Migraine headache with ophthalmoplegia
2.05	Migraine headache with transient hemiparesis or monoparesis
2.06	Alternating hemiplegic migraine syndrome

### References:

- Aminoff MJ. Headache. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-919.
- Capobianco DJ, Cheshire WP, Campbell JK. An overview of the diagnosis and pharmacologic treatment of migraine. Mayo Clinic Proceedings. 1996;71(11):1055-1066.
- Goadsby PJ, Olesen J. Diagnosis and management of migraine. BMJ. 1996;312(7041):1279-1283.
- Haslam, RHA. The nervous system/headaches. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1702-1705.
- Parker C. Complicated migraine syndromes and migraine variants. Pediatric Annals 1997;26: 417-421.
- Pryse-Phillips WE, Dodick DW, Edmeads JG, Gawel MJ, Nelson RF, Purdy RA, Robinson G, Stirling D, Worthington I. Guidelines for the diagnosis and management of migraine in clinical practice. Canadian Headache Society. Canadian Medical Association Journal. 1997;156(9):1273-1287.
- Raskin NH. Migraine and the cluster headache syndrome. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2307-2311.
- Raskin NH. Headache. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:68-73.

## Clinical Criteria with Description

DXCat Number: NEU10

DXCat Label: Huntington's Chorea

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Huntington's Chorea
2.01	with seizures
2.02	with dementia
2.03	with invalidism or cachexia
2.04	with decubitus ulcer
2.05	aspiration pneumonia
3.01	with sepsis
3.02	with respiratory failure
3.03	with coma
3.04	with shock
4.00	with death

### References:

- Aminoff MJ. Huntington's disease. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:946.
- Binedell J, Soldan JR, Scourfield J, Harper PS. Huntington's disease predictive testing: the case for an assessment approach to requests from adolescents. Journal of Medical Genetics. 1996;33(11):912-8.
- Bird TD. Alzheimer's disease and other primary dementias. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2348-2356.
- Brett EM. Spinocerebellar degenerations and some related conditions/Huntington's disease. In: Brett EM, ed. Pediatric Neurology. 1997:248-251.
- Brinkman RR, et al. The likelihood of being affected with Huntington disease by a particular age, for a specific CAG size. American Journal of Human Genetics 1997; 60:1202-1210.
- Rosenberg RN, Iannaccone ST. The prevention of neurogenetic disease. Archives of Neurology. 1995;52(4):356-362.

## Clinical Criteria with Description

DXCat Number: NEU11

Etiology:

DXCat Label: Injury: Craniocerebral

Trauma

### Stage Description

1.01	Head injury without intracranial involvement
1.02	without intracranial involvement and cellulitis
1.03	with concussion
2.01	Linear or basilar skull fracture
2.02	Crushing injury to the head and neck
2.03	Depressed or compound skull fracture
2.04	with cranial nerve involvement
2.05	with carotid or vertebral artery dissection
2.06	with intracranial hemorrhage or cerebral laceration
2.07	with hyponatremia or syndrome of inappropriate antidiuretic hormone secretion
3.01	with cerebral infarction
3.02	with paraparesis or quadriparesis
3.03	with Glasgow coma scale rating $\geq 11$
3.04	with Glasgow coma scale rating $\geq 4$ and $< 11^*$
3.05	with pulmonary embolism
3.06	with bacterial meningitis
3.07	with sepsis

## Clinical Criteria with Description

DXCat Number: NEU11

DXCat Label: Injury: Craniocerebral

Etiology:

Trauma

Stage	Description
3.08	with respiratory failure
3.09	with Glasgow coma scale rating <4
3.10	with shock
4.00	with death

### References:

Aminoff MJ. Head injury. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:954.

Aminoff MJ. Spinal trauma. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:956.

Chesnut RM. Guidelines for the management of severe head injury: what we know and what we think we know. Journal of Trauma. 1997;42(5 Suppl):S19-22.

Gentleman D, Dearden M, Midgley S, Maclean D. Guidelines for resuscitation and transfer of patients with serious head injury. BMJ. 1993;307(6903):547-552.

Ropper AH. Traumatic injuries of the head and spine. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2390-2398.

## Clinical Criteria with Description

DXCat Number: NEU12

DXCat Label: Injury: Spine and spinal cord

Etiology:

Trauma

Stage	Description
1.01	Sprain of back
1.02	Spinal cord concussion
1.03	Dislocation(s) or fracture(s) of the vertebrae without injury to the cord
2.01	Open fracture or dislocation of vertebrae without injury to the cord
2.02	Trauma to spine and spinal cord with paresis
2.03	with monoplegia or cauda equina syndrome or conus medullaris syndrome
2.04	with paraplegia or hemiplegia
2.05	with segmental sensory loss
2.06	with Brown-Sequard Syndrome
2.07	with cellulitis
2.08	with urinary tract infections
2.09	with osteomyelitis
2.10	with deep vein thrombosis
2.11	with quadriplegia
3.01	with pulmonary embolism or fat embolism
3.02	with renal failure
3.03	with sepsis

## Clinical Criteria with Description

DXCat Number: NEU12

DXCat Label: Injury: Spine and spinal cord

Etiology:

Trauma

Stage	Description
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

Aminoff MJ. Spinal Trauma. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:956.

Atkinson PP, Atkinson JL, Spinal shock. Mayo Clinic Proceedings. 1996;71(4):384-389.

Ditunno JF Jr. Formal CS. Chronic spinal cord injury. N Engl J Med. 1994;330(8):550-556.

Haslam, RHA. The nervous system/spinal cord trauma. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1736-1737.

Ropper AH. Traumatic injuries of the head and spine. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2390-2398.

## Clinical Criteria with Description

DXCat Number: NEU13

DXCat Label: Meningitis, Encephalitis, and Myelitis: Viral

Etiology:

Infection, Viral

Stage	Description
1.01	Viral meningitis or aseptic meningitis
2.01	Viral meningoencephalitis
2.02	with acute cerebellar ataxia
2.03	with cranial nerve involvement
2.04	with acute hemiplegia
2.05	with viral pneumonia
2.06	with aspiration pneumonia
2.07	with syndrome of inappropriate diuretic hormone secretion
3.01	with myocarditis
3.02	with myelitis
3.03	with sepsis
3.04	with respiratory failure
3.05	with coma
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: NEU13

DXCat Label: Meningitis, Encephalitis, and Myelitis: Viral

Etiology:

Infection, Viral

### Stage Description

### References:

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Centers for Disease Control. Case definitions for Infectious Conditions Under Public Health Surveillance. MMWR 1997;46(No.RR-10):43-44.

Jacobs RA. Infections of the central nervous system. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1187-1189.

Tyler KL. Aseptic meningitis, viral encephalitis, and prion diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:1197-1202.

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## Clinical Criteria with Description

DXCat Number: NEU14

DXCat Label: Meningitis: Bacterial

Etiology:

Infection, Bacterial

### Stage Description

3.01	of hematogenous origin or primary meningitis
3.02	with syndrome of inappropriate antidiuretic hormone secretion
3.03	with obstructive hydrocephalus or subdural effusion
3.04	with lateralizing neurological deficits
3.05	with disseminated intravascular coagulation
3.06	with adrenal insufficiency or Waterhouse-Friderichsen syndrome
3.07	with sepsis
3.08	with hypoventilation syndrome
3.09	with cerebellar or temporal lobe uncal herniation or respiratory failure
3.10	with coma
3.11	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: NEU14

DXCat Label: Meningitis: Bacterial

Etiology:

Infection, Bacterial

### Stage Description

### References:

Jacobs RA. Infections of the central nervous system. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1187-1189.

Prober CG. Infections of the central nervous system. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:707-713.

Quagliarello VJ, Scheld WM. Treatment of bacterial meningitis. N Engl J Med. 1997;336(10):708-716.

Scheld WM. Bacterial meningitis, brain abscess, and other suppurative intracranial infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2419-2434.

Tunkel AR, Scheld WM. Acute bacterial meningitis. Lancet. 1995;346(8991-8992):1675-1680.

Tureen J. Meningitis. In: Rudolph AM, Hoffman JIE and Rudolph CD, eds. Rudolph's Pediatrics, Stamford, CT: Appleton & Lange; 1996:544-548.

Wubbel L and McCracken GH Jr. Management of bacterial meningitis. Pediatrics in Review 1998;19:78-84.

## Clinical Criteria with Description

DXCat Number: NEU15

DXCat Label: Mental Retardation

Etiology:

Congenital; Genetic (or hereditary); Toxicologic; Trauma

Stage	Description
1.01	Borderline mental retardation
1.02	Mild
2.01	Moderate
2.02	Severe
2.03	Profound
3.01	with vegetative existence

### References:

Balshaw ML. Mental retardation. *Pediatric Clinics of North America*. 1993;40:507-521.

Camp BW, Kozleski EB. Developmental disorders/mental retardation. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:103-106.

Palmer FB, Capute AJ. Mental retardation. *Pediatrics in Review*. 1994;15:473-479.

Shonkoff JP. Mental retardation. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*, 15th ed. Philadelphia, PA: WB Saunders; 1996:128-131.

## Clinical Criteria with Description

DXCat Number: NEU16

DXCat Label: Multiple Sclerosis

Etiology:

Idiopathic

### Stage Description

1.01	Relapsing-remitting multiple sclerosis
2.01	with optic atrophy
2.02	with vision limited to light perception
2.03	with memory loss or impaired attention or problem-solving difficulties or slowed information processing
2.04	Secondary progressive multiple sclerosis
2.05	Primary progressive multiple sclerosis
2.06	Progressive-relapsing multiple sclerosis
2.07	with decubitus ulcer
2.08	with pneumonia
3.01	with permanent neurological deficits
3.02	with sepsis
3.03	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: NEU16

DXCat Label: Multiple Sclerosis

Etiology:

Idiopathic

### Stage Description

### References:

Aminoff MJ. Multiple sclerosis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:949-950.

Brett EM. Spinocerebellar degenerations and some related conditions/multiple sclerosis." In: Brett EM, ed. Pediatric Neurology. 3rd ed. 1997:258-261.

Compston A. Genetic epidemiology of multiple sclerosis. Journal of Neurology, Neurosurgery & Psychiatry. 1997;62(6):553-561.

Haslam, RHA. The nervous system/neurodegenerative disorders of childhood. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1723-1728.

Hauser SL, Goodkin DE. Multiple sclerosis and other demyelinating diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2409-2419.

Lucchinetti CF, Rodriguez M. The controversy surrounding the pathogenesis of the multiple sclerosis lesion. Mayo Clinic Proceedings. 1997;72(7):665-678.

## Clinical Criteria with Description

DXCat Number: NEU17

DXCat Label: Myasthenia Gravis

Etiology:

Immune

### Stage Description

1.01	Localized myasthenia gravis
2.01	with dysphagia or thymoma
2.02	with generalized weakness
3.01	with myasthenic crisis or respiratory failure
3.02	with shock
4.00	with death

### References:

Aminoff MJ. Nervous system. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-973.

Drachman DB. Myasthenia gravis and other diseases of the neuromuscular junction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2469-2473.

Keeseey J, Myasthenia gravis. Archives of Neurology. 1998;55(5):745-6.

Wittbrodt ET. Drugs and myasthenia gravis. An update. Archives of Internal Medicine. 1997;157(4):399-408, 1997 Feb 24.

## Clinical Criteria with Description

DXCat Number: NEU18

Etiology:

DXCat Label: Neoplasm: Central Nervous System

Neoplasm

### Stage Description

0.00	History of Central Nervous System Neoplasia
1.01	Central Nervous System Neoplasia
1.02	with ataxia
2.01	with cranial nerve deficits
2.02	with hydrocephalus or papilledema
3.01	with grand mal (or simple or complex partial) seizures
3.02	with hemiparesis or hemiplegia or paraplegia or paraparesis
3.03	with decerebrate rigidity
3.04	with cerebral herniation or respiratory failure
3.05	with coma
3.06	with shock

### References:

Aminoff MJ. Intracranial and spinal space-occupying lesions. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:937-941.

Pollack IF. Brain tumors in children. N Engl J Med. 1994;331(22):1500-1507.

Sagar SM, Israel MA. Tumors of the nervous system. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2409-2419.

Whittle IR. Management of primary malignant brain tumors. Journal of Neurology, Neurosurgery & Psychiatry. 1996;60(1):2-5.

## Clinical Criteria with Description

DXCat Number: NEU19

DXCat Label: Neurofibromatosis Type I [Von Recklinghausen's Disease]

Etiology:

Genetic (or hereditary)

### Stage Description

1.01	Nuerofibromatosis Type I
2.01	with paresthesias or hypesthesia
2.02	with macroencephaly or learning disability
2.03	with pheochromocytoma or medullary thyroid carcinoma or dysplastic scoliosis or rhabdomyosarcoma or sarcomatous degeneration
3.01	with hemiparesis or paraparesis
3.02	with hemiplegia or paraplegia
3.03	with respiratory failure
4.00	with death

### References:

- Aminoff MJ. Nervous system. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-973.
- Gutmann DH, Aylsworth A, Carey JC, et al. The diagnostic evaluation and multidisciplinary management of neurofibromatosis 1 and neurofibromatosis 2. JAMA. 1997;278(1):51-7.
- Rosenberg RN, Iannaccone ST. The prevention of neurogenetic disease. Archives of Neurology. 1995;52(4):356-62.
- Sagar SM, Israel MA. Tumors of the nervous system. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2398-2409.

## Clinical Criteria with Description

DXCat Number: NEU20

DXCat Label: Parkinson's Disease

Etiology:

Degenerative; Idiopathic; Infection; Toxicologic

### Stage Description

1.01	Parkinson's disease
1.02	with rigidity or tremor involving both lower or upper extremities
1.03	with bradykinesia
2.01	with gait disturbances
2.02	with impairment of dexterity
2.03	with midstage dementia
2.04	with decubitus ulcer
2.05	with pneumonia
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

- Aminoff MJ. Nervous system. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:916-973.
- Aminoff MJ. Parkinson's disease and other extrapyramidal disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2356-2363.
- Geldmacher DS, Whitehouse PJ. Evaluation of dementia. N Engl J Med. 1996;335(5):330-6.
- Kalra S, Bergeron C, Lang AE. Lewy body disease and dementia. Archives of Internal Medicine. 1996;156(5):487-93.
- Manyam BV. Practical guidelines for management of Parkinson's disease. Journal of the American Board of Family Practice. 1997;10(6):412-24.

## Clinical Criteria with Description

DXCat Number: NEU21

DXCat Label: Tuberous Sclerosis

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Asymptomatic tuberous sclerosis
2.01	with seizures
2.02	with mental retardation
2.03	with renal cysts
2.04	with renal angiomyolipomas
2.05	with rhabdomyomas of the heart
2.06	with rhabdomyomas of the heart and ventricular premature contractions or atrial premature contractions or atrial premature contractions or supraventricular tachycardias or ectopic atrial rhythm or atrial fibrillation or atrial flutter
2.07	with Wolff-Parkinson-White syndrome
3.01	with renal failure
3.02	with hydrocephalus
3.03	with renal carcinoma or sarcoma
3.04	with rhabdomyomas of the heart and congestive heart failure
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: NEU21

DXCat Label: Tuberous Sclerosis

Etiology:

Genetic (or hereditary)

### Stage Description

### References:

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Haslam, RHA. The nervous system/neurocutaneous syndromes. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1705-1709.

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Moe PG, Seay AR. Neurologic & muscular disorders/neurocutaneous dysplasias. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:672-675.

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Sagar SM, Israel MA. Tumors of the nervous system/neurocutaneous syndromes. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:24504.

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Stowens D. Congenital malformations of the central nervous system I: neurocutaneous syndromes. In: David RB, ed. Child and Adolescent Neurology. St. Louis, MO: Mosby; 1998:419-440.

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## Clinical Criteria with Description

DXCat Number: NEU80

Etiology:

DXCat Label: Other CNS Inflammation, Infection, or Disorder

Stage	Description
1.01	Tremor, dystonias, or late effects of CNS infections
2.01	Intraspinal abscess, extrapyramidal conditions, cerebral degeneration, cataplexy, or paraplegia
3.01	Intracranial abscess, thrombus of intracranial sinus, communicating hydrocephalus or quadriplegia

### References:

## Clinical Criteria with Description

DXCat Number: NEU81

Etiology:

DXCat Label: Other Cranial Nerve Disorders

Stage	Description
1.01	Other cranial nerve disorders

References:

## Clinical Criteria with Description

DXCat Number: NEU82

Etiology:

DXCat Label: Other Neurological Conditions

Stage	Description
1.01	Neuropathies; abnormal movement; gait, coordination, sensory disturbances, meningismus, transient paralysis, clubbing
1.02	Neuropathy due to drugs, tetany

References:

## Clinical Criteria with Description

DXCat Number: NEU83

Etiology:

DXCat Label: Other Peripheral Nerve Disorders

Stage	Description
1.01	Other mononeuritis, polyneuropathy, or myoneural disorders or late effect of nerve injury
1.02	Familial periodic paralysis

References:

## Clinical Criteria with Description

DXCat Number: NEU84

Etiology:

DXCat Label: Other Spinal Lesions

Stage	Description
1.01	Other spinal lesions

References:

## Clinical Criteria with Description

DXCat Number: NUT01

DXCat Label: Beriberi, Thiamine Deficiency

Etiology:

Nutritional

### Stage Description

1.01	Thiamine deficiency
1.02	with toxic amblyopia
1.03	with nystagmus or ophthalmoplegia
2.01	with peripheral edema
2.02	with pleural effusion
3.01	with Wernicke-Korsakoff syndrome
3.02	with congestive heart failure
3.03	with coma
4.00	with death

### References:

Baron RB. Nutrition. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1150-1180.

Kopelman MD. The Korsakoff syndrome. British Journal of Psychiatry. 1995;166(2):154-73.

Wilson JD. Vitamin deficiency and excess. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:480-489.

## Clinical Criteria with Description

DXCat Number: NUT02

DXCat Label: Obesity

Etiology:

Genetic (or hereditary); Metabolic; Nutritional

Stage	Description
1.01	Simple obesity
1.02	Moderate obesity
2.01	Severe obesity
2.02	with dyslipidemia
2.03	with the Pickwickian syndrome
3.01	with respiratory failure
3.02	with shock
4.00	with death

### References:

Baron RB. Obesity. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1161-1164.

Bjorntorp P. Obesity. Lancet. 1997;350(9075):423-426.

Bray GA. Obesity. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:454-462.

Rosenbaum M, Leibel RL, Hirsch J. Obesity. N Engl J Med. 1997;37(6):396-407.

## Clinical Criteria with Description

DXCat Number: NUT03

DXCat Label: Pellagra

Etiology:

Nutritional

### Stage Description

1.01	Pellagra
2.01	with dermatitis or mucositis
3.01	with renal failure
3.02	with coma
4.00	with death

### References:

Baron RB. Nutrition. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1150-1180.

Black MM, Gawkrödger DJ, Seymour CA, Weismann K. Metabolic and nutritional disorders. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling Textbook of Dermatology. Oxford: Blackwell Science Ltd.; 1998:2659-2660.

Lanska DJ. Stages in the recognition of epidemic pellagra in the United States: 1865-1960. Neurology. 1996;47(3):829-34.

Stratigos JD, Katsambas A. Pellagra, a still existing disease. Br J Dermatol. 1977;(96):99-106.

Wilson JD. Vitamin deficiency and excess. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:480-489.

## Clinical Criteria with Description

DXCat Number: NUT80

Etiology:

DXCat Label: Other Electrolyte Disorders

Stage	Description
1.01	Hyposmolality, alkalosis, hypovolemia, hyper- or hypopotassemia, or fluid overload
3.01	Hyperosmolality or acidosis

### References:

## Clinical Criteria with Description

DXCat Number: NUT81

Etiology:

DXCat Label: Other Nutritional and Metabolic Disorders

Metabolic; Nutritional

Stage	Description
1.01	Other malnutrition and dietary deficiencies or disorders of lipid, amino-acid or other metabolism

### References:

## Clinical Criteria with Description

DXCat Number: OTH80

Etiology:

DXCat Label: Abnormal Lab, X-ray and Clinical Findings

Stage	Description
1.01	Abnormal lab, X-ray or clinical findings

References:

## Clinical Criteria with Description

DXCat Number: OTH81

Etiology:

DXCat Label: Complications of Surgical and Medical Care

Stage	Description
1.01	Malfunction of or reaction to implanted genitourinary, vascular, ocular, skin or orthopedic device
2.01	Malfunction of or reaction to implanted cardiac or neurologic device, dialysis catheter, iatrogenic cardiac events, hemorrhage, infection, embolism
3.01	Complications of transplanted organs, postoperative shock

### References:

## Clinical Criteria with Description

DXCat Number: OTH82

Etiology:

DXCat Label: Encounter for Chemotherapy

Stage	Description
1.01	Encounter for chemotherapy

References:

## Clinical Criteria with Description

DXCat Number: OTH83

Etiology:

DXCat Label: Encounter for Dialysis

Stage	Description
1.01	Dialysis related encounters

References:

## Clinical Criteria with Description

DXCat Number: OTH84

Etiology:

DXCat Label: Encounter for Other Administrative Reasons

Stage	Description
1.01	Administrative encounters

References:

## Clinical Criteria with Description

DXCat Number: OTH85

Etiology:

DXCat Label: Encounter for Preventive Health Services

Stage	Description
0.00	Contact with communicable disease
1.01	Encounter for vaccination, examinations, or screening for disease conditions

### References:

## Clinical Criteria with Description

DXCat Number: OTH86

Etiology:

DXCat Label: Encounter for Radiation Therapy

Stage	Description
1.01	Encounter for radiation therapy

References:

## Clinical Criteria with Description

DXCat Number: OTH87

Etiology:

DXCat Label: Encounter Related to Other Treatment

Stage	Description
1.01	Elective surgery, physical therapy, rehabilitation, or other aftercare encounters, procreative treatment and management, artificial opening status, donor
1.02	Organ transplant status or joint replacement status

References:

## Clinical Criteria with Description

DXCat Number: OTH88

Etiology:

DXCat Label: Factors Influencing Health Status

Stage	Description
1.01	Tobacco use, infectious disease carrier, personal or family history of disease, allergy, abuse, exposure, dialysis status, other post-operative status, respirator dependent

References:

## Clinical Criteria with Description

DXCat Number: OTH89

Etiology:

DXCat Label: Neoplasm, Benign: Other Sites

Neoplasm

Stage	Description
1.01	Benign neoplasm of other and unspecified sites

### References:

## Clinical Criteria with Description

DXCat Number: OTH90

Etiology:

DXCat Label: Neoplasm, Malignant: Nonspecific Sites

Neoplasm

Stage	Description
0.00	History of malignancy, nonspecific site
1.01	Primary malignant neoplasm of other and nonspecific sites
2.01	with lymph node involvement
2.02	with anemia or neuropathy of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: OTH91

Etiology:

DXCat Label: Neoplasm, Malignant: Unspecified Primary Site

Neoplasm

### Stage Description

1.01	Primary malignant neoplasm of body area with unspecified tissue involved
2.01	Secondary malignant neoplasm of lymph nodes with unstated primary
2.02	with anemia of neoplastic disease
3.01	Secondary malignant neoplasm of other sites with unstated primary
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: OTH92

Etiology:

DXCat Label: Other General Signs, Symptoms, and Conditions

### Stage Description

1.01	Syncope, dizziness, sleep disturbances, fever, malaise, hyperhidrosis, nervousness, cachexia, edema, cyanosis, jaundice, anorexia, weight changes
2.01	Alteration of consciousness, persistent vegetative state, hallucinations, convulsions
3.01	Coma, asphyxia or respiratory arrest
4.00	Death

### References:

## Clinical Criteria with Description

DXCat Number: PED01

DXCat Label: Anomaly: Adrenal Hyperplasia

Etiology:

Congenital; Genetic (or hereditary)

### Stage Description

1.01	21-Hydroxylase deficiency
1.02	11-Beta hydroxylase deficiency
1.03	3-Beta hydroxysteroid dehydrogenase deficiency
2.01	Salt losing congenital adrenal hyperplasia
3.01	with shock
4.00	with death

### References:

New MI. Steroid 21-hydroxylase deficiency (congenital adrenal hyperplasia). *American Journal of Medicine*. 1995;98(1A):2S-8S.

Orth DN, Kovacs WJ, DeBold CR. The adrenal cortex. In: Wilson JD, Foster DW, eds. *Williams Textbook of Endocrinology*. 8th ed. Philadelphia, PA: WB Saunders; 1992:489-620.

White PC. Inherited forms of mineralocorticoid hypertension. *Hypertension*. 1996;28(6):927-936.

Wilson JD, Griffin JE. Disorders of sexual differentiation. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2119-2131.

## Clinical Criteria with Description

DXCat Number: PED02

DXCat Label: Anomaly: Atrial Septal Defect

Etiology:

Congenital

### Stage Description

1.01	Atrial septal defect secundum
1.02	Atrial septal defect primum
2.01	with atrial fibrillation or atrial flutter or reentrant atrial tachycardia
2.02	with mitral regurgitation
3.01	with pulmonary hypertension
3.02	with congestive heart failure
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

- Bernstein D. Acyanotic congenital heart disease: the left to right shunt lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1288-1296.
- Freed M. Congenital heart disease: acyanotic and cyanotic. In Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.
- Friedman WF, Child JS. Congenital heart disease in the adult: acyanotic congenital heart disease with a left-to-right shunt. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1303-1306.
- Massie BM, Amidon TM. Congenital heart disease: atrial septal defect. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:341-342.
- Perloff JK. Atrial septal defect: simple and complex. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:293-380.
- Perloff JK. Primary pulmonary hypertension. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:273-292.
- Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.
- Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Noncyanotic heart disease: atrial septal defect of the ostium secundum variety. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:489-490.

## Clinical Criteria with Description

DXCat Number: PED03

DXCat Label: Anomaly: Atrioventricular Defects

Etiology:

Congenital

### Stage Description

2.01	Endocardial cushion defect
2.02	Endocardial cushion defect with pneumonia
3.01	Endocardial cushion defect with pulmonary hypertension
3.02	Endocardial cushion defect with infectious endocarditis
3.03	Endocardial cushion defect with congestive heart failure
3.04	Endocardial cushion defect with sepsis
3.05	Endocardial cushion defect with respiratory failure
3.06	Endocardial cushion defect with shock
4.00	Endocardial cushion defect with death

### References:

Bernstein D. Acyanotic congenital heart disease: the left to right shunt lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1288-1296.

Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.

Perloff JK. Atrial septal defect: simple and complex. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:293-380.

Perloff JK. Primary pulmonary hypertension. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:273-292.

Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Noncyanotic heart disease: atrial septal defect of the ostium secundum variety. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:492-94.

## Clinical Criteria with Description

DXCat Number: PED04

DXCat Label: Anomaly: Coarctation of the Aorta

Etiology:

Congenital

### Stage Description

1.01	Asymptomatic post-ductal coarctation of the aorta
1.02	Asymptomatic pre-ductal coarctation of the aorta
1.03	with intermittent claudication
2.01	with aortic insufficiency
3.01	with endocarditis
3.02	with acute myocardial infarction
3.03	with congestive heart failure
3.04	with new cerebrovascular accident
3.05	with sepsis
3.06	with aortic dissection
3.07	with respiratory failure
3.08	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED04

DXCat Label: Anomaly: Coarctation of the Aorta

Etiology:

Congenital

### Stage Description

### References:

- Backer CL, Paape K, Zales VR, Weigel TJ, Mavroudis C. Coarctation of the aorta. Repair with polytetrafluoroethylene patch aortoplasty. *Circulation*. 1995;92(9 Suppl):II132-6.
- Bernstein D. Acyanotic congenital heart disease: the obstructive lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:1297-1305.
- Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. *Primary Pediatric Cardiology*. Armonk, NY: Futura; 1995:145-220.
- Friedman WF, Child JS. Congenital heart disease in the adult. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1300-1309.
- Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1300-1309.
- Massie BM, Amidon TM. Heart: coarctation of the aorta. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:341.
- Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. *Congenital Heart Disease in Adults*. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.
- Perloff JK. Ventricular septal defect. In: *The Clinical Recognition of Congenital Heart Disease*. 4th ed. Philadelphia, PA: WB Saunders; 1994:396-439.
- Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Noncyanotic heart disease: coarctation of the aorta. In: Hay WW, Groosthuss JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:498-500.

## Clinical Criteria with Description

DXCat Number: PED05

DXCat Label: Anomaly: Congenital Megacolon

Etiology:

Congenital

### Stage Description

1.01	Congenital megacolon
2.01	with toxic enterocolitis or dehydration or electrolyte imbalance
2.02	with peritonitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

- Eng C. Seminars in medicine of the Beth Israel Hospital, Boston. The RET proto-oncogene in multiple endocrine neoplasia type 2 and Hirschsprung's disease. *N Engl J Med.* 1996;335(13):943-951.
- Holmes SJK. Emergencies in the newborn. In: Ellis BW, Paterson-Brown, S, eds. *Hamilton Bailey's Emergency Surgery.* 12th ed. Butterworth-Heinemann. 1995;530-550.
- Isselbacher KJ, Epstein A. Diverticular, vascular, and other disorders of the intestine and peritoneum. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998;1648-1656.
- Moir CR. Abdominal pain in infants and children. *Mayo Clinic Proceedings.* 1996;71(10):984-989.
- Moore T. Hirschsprung's disease. In: Austin, ed. *Challenges in Pediatric Surgery.* RG Landes Company. 1994;27-32.
- Puri P. Hirschsprung Disease. In: Oldham TK, Colombani MP, Foglia PR, eds. *Surgery of Infants and Children.* Lippincott-Raven. 1997;1277-1299.
- Robertson K, Mason I, Hall S. Hirschsprung's disease: genetic mutations in mice and men. *Gut.* 1997;41(4):436-441.
- Rowe M, O'Neill J, Grosfeld J, Fonkalsrud E, Coran A. Hirschsprung's disease. In: Mosby, ed. *Essentials of Pediatric Surgery.* 1995;586-595.
- Sullivan PB. Hirschsprung's disease. *Archives of Disease in Childhood.* 1996;74(1):5-7.

## Clinical Criteria with Description

DXCat Number: PED06

DXCat Label: Anomaly: Defects of Kidney

Etiology:

Congenital

### Stage Description

1.01	Unilateral renal agenesis or unilateral renal hypoplasia
2.01	Horseshoe kidney or supernumerary kidney or fusion of the kidney
2.02	Renal dysplasia or juvenile polycystic kidney, or medullary cystic or sponge kidney or juvenile nephronophthisis
2.03	Segmental renal hypoplasia or Ask-Upmark syndrome
2.04	Adult polycystic kidney
2.05	Hydronephrosis
2.06	Hypoplastic kidneys
2.07	with pyelonephritis
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Asplin JR, Coe FL. Hereditary tubular disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1562-1569.

Brenner BM, Levy E, Hostetler TH. Tubulointerstitial diseases of the kidney. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1553-1558.

Morrison G. Kidney. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:850-878.

Woo D. Apoptosis and loss of renal tissue in polycystic kidney diseases. N Engl J Med. 1995;333(1):18-25.

Zerres K, Mucher G, Rudnik-Schoneborn S. Early morphological evidence of autosomal recessive polycystic kidney disease. Lancet. 1995;345(8955):987.

## Clinical Criteria with Description

DXCat Number: PED07

DXCat Label: Anomaly: Defects of Lower Genitourinary Tract

Etiology:

Congenital

### Stage Description

1.01	Congenital hydrocele
1.02	Hypospadias
1.03	Epispadias
1.04	Posterior urethral valves
1.05	with urinary tract infection
2.01	Hydronephrosis
2.02	Ectopic bladder
2.03	with pyelonephritis
3.01	with renal failure
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Asplin JR, Coe FL. Hereditary tubular disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1562-1569.

Brenner BM, Levy E, Hostetler TH. Tubulointerstitial diseases of the kidney. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1553-1558.

Morrison G. Kidney. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:850-878.

Woo D. Apoptosis and loss of renal tissue in polycystic kidney diseases. N Engl J Med. 1995;333(1):18-25.

Zerres K, Mucher G, Rudnik-Schoneborn S. Early morphological evidence of autosomal recessive polycystic kidney disease. Lancet. 1995;345(8955):987.

## Clinical Criteria with Description

DXCat Number: PED08

Etiology:

DXCat Label: Anomaly: Integument (Genodermatoses)

Genetic (or hereditary)

### Stage Description

1.01	Congenital dermatoses, Ichthyosis, Keratosis palmaris et plantaris, Pachyonychia congenita, Dyskeratosis congenita, Porokeratosis, Xeroderma pigmentosum, Ectodermal dysplasia, Focal dermal hypoplasia syndrome, Aplasia cutis congenita, Poikiloderma congenitale, Bloom's syndrome, Ataxia-telangiectasia, Epidermolysis bullosa, Familial benign pemphigus, Keratosis follicularis, Acrokeratosis verruciformis of hopf, Psuedoxanthoma elasticum, Connective tissue nevus, Ehlers-danlos syndrome, Cutis laxa, Urticaria pigmentosa, Incontinentia pigmenti, or Hypomelanosis of ito
2.01	Bullous congenital ichthyosiform erythroderma, Harlequin ichthyosis, Epidermolysis bullosa dystrophicans, recessive type

### References:

- Harper JI. Genetics and genodermatoses. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkson/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd.; 1998:357-436.
- Johnson B Jr., Honig P. Congenital diseases (Genodermatoses). In: Elder D, Elnitsas R, Jaworsky C, Johnson B Jr. Lever's Histopathology of the skin. 8th ed. Philadelphia, PA: Lippincott; 1997:117-150.

## Clinical Criteria with Description

DXCat Number: PED09

DXCat Label: Anomaly: Neural Tube Defects

Etiology:

Congenital; Genetic (or hereditary)

### Stage Description

1.01	Dermal sinus
1.02	Spina bifida occulta
1.03	Spina bifida occulta with tethered umbilical cord
1.04	Spinal bifida occulta with diastematomyelia
2.01	Meningocele
2.02	Defects of the neural tube with hemiparesis or paraparesis
2.03	Defects of the neural tube with bladder dysfunction
2.04	Defects of the neural tube with urinary tract infection
2.05	Syringomyelia
2.06	Defects of the neural tube with paralysis
3.01	Myelomeningocele
3.02	Encephalocele
3.03	with meningitis
3.04	with hydrocephalus
3.05	Hydrocephalus with herniation of the medulla and cerebellar tonsils ("Chiari crisis") or respiratory failure
3.06	Defects of the neural tube with renal failure
3.07	Defects of the neural tube with sepsis

## Clinical Criteria with Description

DXCat Number: PED09

DXCat Label: Anomaly: Neural Tube Defects

Etiology:

Congenital; Genetic (or hereditary)

Stage	Description
3.08	Anencephaly
3.09	Defects of the neural tube with shock
4.00	Defects of the neural tube with death

### References:

Aminoff MJ. Syringomyelia. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:956.

Haller JS. Congenital malformations of the central nervous system II. In: David RB, ed. Child and Adolescent Neurology. St. Louis, MO: Mosby; 1998:441-452.

Haslam, RHA. The nervous system/congenital anomalies of the central nervous system. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:1677-1686.

Hauser SL. Diseases of the spinal cord. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:2381-2390.

Perandones C, Cerretini RI, Vargas VRM, Aranda EI, Alba LG, Pivetta OH. Microcephaly, characteristic facies, joint abnormalities, and deficient leucocyte chemotaxis: a further case of the syndrome of Say et al. Journal of Medical Genetics. 1996;33(3):227-229.

## Clinical Criteria with Description

DXCat Number: PED10

DXCat Label: Anomaly: Other Congenital Heart Disease

Etiology:

Congenital

### Stage Description

1.01	Tricuspid atresia or truncus arteriosus or single ventricle or Ebstein's anomaly or hypoplastic left heart
2.01	with hypoxemia
3.01	with congestive heart failure
3.02	with sepsis
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

- Bernstein D. Cyanotic congenital heart disease: the left to right shunt lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1310-1329.
- Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.
- Perloff JK. Ebstein's anomaly of the tricuspid valve. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:247-272.
- Perloff JK. The hypoplastic left heart. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:727-737.
- Perloff JK. The univentricular heart. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:635-657.
- Perloff JK. Tricuspid atresia. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:686-702.
- Perloff JK. Truncus arteriosus. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:614-634.

## Clinical Criteria with Description

DXCat Number: PED11

DXCat Label: Anomaly: Pulmonary Valve Stenosis

Etiology:

Congenital

### Stage Description

1.01	Pulmonary valve stenosis
1.02	Moderate pulmonary valve stenosis
1.03	Severe pulmonary valve stenosis
2.01	with hypoxemia
3.01	with infectious endocarditis
3.02	with congestive heart failure
3.03	with sepsis
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

- Bernstein D. Acyanotic congenital heart disease: obstructive lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1297-1305.
- Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.
- Friedman WF, Child JS. Congenital heart disease in the adult: acyanotic congenital heart disease without a shunt. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1306-1307.
- Massie BM, Amidon TM. Congenital heart disease: pulmonary stenosis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:340-341.
- Perloff JK. Congenital pulmonary stenosis. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:198-229.
- Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.
- Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Noncyanotic heart disease: malformations associated with obstruction of blood to the right side of the heart. In: Hay WW, Groosthus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:496-498.

## Clinical Criteria with Description

DXCat Number: PED12

DXCat Label: Anomaly: Tetralogy of Fallot

Etiology:

Congenital

### Stage Description

1.01	Tetralogy of Fallot
2.01	with hypercarbia
2.02	with anemia
2.03	with polycythemia
2.04	with aortic stenosis
2.05	with aortic regurgitation
3.01	with brain abscess
3.02	with infectious endocarditis
3.03	with congestive heart failure
3.04	with cerebrovascular accident
3.05	with sepsis
3.06	with respiratory failure
3.07	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED12

DXCat Label: Anomaly: Tetralogy of Fallot

Etiology:

Congenital

### Stage Description

### References:

Bernstein D. Cyanotic congenital heart disease: cyanotic lesions associated with decreased pulmonary blood flow. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1311-1315.

Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.

Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.

Perloff JK. Ventricular septal defect with pulmonary stenosis. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:440-482.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Cyanotic heart disease: tetralogy of fallot. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:506-507.

## Clinical Criteria with Description

DXCat Number: PED13

DXCat Label: Anomaly: Tracheoesophageal Malformations

Etiology:

Congenital

### Stage Description

1.01	Esophageal atresia
1.02	Tracheoesophageal fistula with or without esophageal atresia
2.01	with reactive airways disease
2.02	with pneumonia
2.03	with chemical pneumonitis
2.04	with lung abscess
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

- Bartels HE, Stein HJ, Siewert JR. Tracheobronchial lesions following oesophagectomy: prevalence, predisposing factors and outcome. *British Journal of Surgery*. 1998;85(3):403-6.
- Cook TA, Dehn TC. Use of covered expandable metal stents in the treatment of oesophageal carcinoma and tracheo-oesophageal fistula. *British Journal of Surgery*. 1996;83(1):1417-8.
- Goyal RK. Dysphagia. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:228-230.
- Herbst JJ. Atresia and tracheoesophageal fistulas. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:1052-53.
- McQuaid KR. Alimentary tract. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:534-628.

## Clinical Criteria with Description

DXCat Number: PED14

DXCat Label: Anomaly: Transposition of the Great Arteries

Etiology:

Congenital

### Stage Description

1.01	Transposition of the great arteries
2.01	with ventricular septal defect
2.02	with pulmonary stenosis
2.03	with polycythemia
3.01	with pulmonary hypertension
3.02	with infectious endocarditis
3.03	with congestive heart failure
3.04	with sepsis
3.05	with respiratory failure
3.06	with shock
4.00	with death

### References:

Bernstein D. Cyanotic congenital heart disease: cyanotic lesions associated with increased pulmonary blood flow. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1320--1322.

Freed M. Congenital heart disease: acyanotic and cyanotic. In: Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.

Perloff JK. Complete transposition of the great arteries. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:658-685.

Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Cyanotic heart disease: complete transposition of the great arteries. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:511-512.

## Clinical Criteria with Description

DXCat Number: PED15

DXCat Label: Anomaly: Ventricular Septal Defects

Etiology:

Congenital

### Stage Description

1.01	Ventricular septal defect < 1.0 sq. cm.
2.01	Ventricular septal defect ≥ 1.0 sq. cm
2.02	with aortic insufficiency
3.01	with pulmonary hypertension
3.02	with Eisenmenger syndrome
3.03	with infectious endocarditis
3.04	with congestive heart failure
3.05	with sepsis
3.06	with respiratory failure
3.07	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED15

DXCat Label: Anomaly: Ventricular Septal Defects

Etiology:

Congenital

### Stage Description

### References:

Bernstein D. Acyanotic congenital heart disease: the left to right shunt lesions. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1288-1296.

Freed M. Congenital heart disease: acyanotic and cyanotic. In Gewitz MH, ed. Primary Pediatric Cardiology. Armonk, NY: Futura; 1995:145-220.

Friedman WF, Child JS. Congenital heart disease in the adult: acyanotic congenital heart disease with a left-to-right shunt. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1303-1306.

Massie BM, Amidon TM. Congenital heart disease: ventricular septal defects. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:343-344.

Perloff JK. Primary pulmonary hypertension. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:273-292.

Perloff JK. Survival patterns without cardiac surgery or interventional catheterization: a narrowing base. In: Perloff JK and Child JS. Congenital Heart Disease in Adults. 2nd ed. Philadelphia, PA: WB Saunders; 1998:15-52.

Perloff JK. Ventricular septal defect. In: The Clinical Recognition of Congenital Heart Disease. 4th ed. Philadelphia, PA: WB Saunders; 1994:396-439.

Wolfe RR, Boucek M, Schaffer MS, and Wiggins, JW. Noncyanotic heart disease: ventricular septal defects. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:490-492.

## Clinical Criteria with Description

DXCat Number: PED16

Etiology:

DXCat Label: Bacterial and Fungal Infections of the Newborn

Infection

### Stage Description

0.00	Newborn born to mother with suspected infection at time of parturition
1.01	Candidal infection of the newborn
1.02	Conjunctivitis of the newborn
1.03	Staphylococcal pustulosis in the newborn
1.04	Mastitis of the newborn
1.05	Omphalitis of the newborn
1.06	Scalded skin syndrome of the newborn
2.01	Bacteremia or fungemia in the newborn
2.02	Septic arthritis in the newborn
2.03	Osteomyelitis in the newborn
2.04	Urinary tract infection in the newborn
2.05	Pneumonia in the newborn
2.06	Peritonitis in the newborn
3.01	with Infective endocarditis
3.02	Meningitis in the newborn
3.03	Sepsis of the newborn
3.04	with disseminated intravascular coagulation

## Clinical Criteria with Description

DXCat Number: PED16

Etiology:

DXCat Label: Bacterial and Fungal Infections of the Newborn

Infection

Stage	Description
3.05	with shock
4.00	with death

### References:

Bone RC et al. Definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. *Chest*. 1992;101(6):1644-1655.

Boyer KM, Hayden WR. Sepsis and septic shock. In: Oski FA, DeAngelis CD, Feigin RD, McMillan JA and Warshaw JB eds. *Principles and Practice of Pediatrics*. 2nd ed. Philadelphia, PA: JB Lippincott; 1994:1119-1124.

Cole FS. Bacterial Infections in the Newborn. In: Taeusch HW and Ballard RA, eds. *Avery's Diseases of the Newborn*. 7th ed. Philadelphia, PA: WB Saunders; 1998:490-512.

Gotoff SP. Neonatal sepsis and meningitis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:528-537.

Guerina, NG. Bacterial and fungal infections. In: Cloherty JP and Stark, AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:271-300.

Prouix F, Fayon M, Farrell CA, Lacroix J, Gauthier M. Epidemiology of sepsis and multiple organ dysfunction syndrome in children. *Chest*. 1996;109(4):1033-1037.

Rosenberg AA, Thilo EH. The newborn infant/infections in the newborn. In: Hay WW, Groothuis JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:52-59.

## Clinical Criteria with Description

DXCat Number: PED17

DXCat Label: Cytomegalovirus Disease (Congenital)

Etiology:

Infection, Viral

### Stage Description

1.01	Asymptomatic congenital cytomegalovirus infection
2.01	Congenital cytomegalovirus infection with preterm delivery
2.02	Congenital cytomegalovirus infection with intrauterine growth retardation
2.03	Cytomegalovirus retinitis
2.04	Cytomegalovirus retinitis with retinal hemorrhages or infiltrates or disk edema
2.05	Cytomegalovirus retinitis with retinal detachment
2.06	with hepatosplenomegaly and jaundice
2.07	with sensorineural hearing loss
2.08	with anemia
2.09	with thrombocytopenia
2.10	with microcephaly
2.11	with seizures
2.12	with mental retardation
3.01	with glomerulopathy or renal failure
3.02	with meningoencephalitis
3.03	with respiratory failure
3.04	with coma

## Clinical Criteria with Description

DXCat Number: PED17

DXCat Label: Cytomegalovirus Disease (Congenital)

Etiology:

Infection, Viral

Stage	Description
3.05	with shock
4.00	with death

### References:

- Beers MH, Berkow R. eds. Congenital and perinatal cytomegalovirus infection. In: Merck Manual. 17th ed. Whitehouse Station, NJ: Merck Research Laboratories; 1999:1288-1290.
- Cole FS. Viral infections of the fetus and newborn. In: Taeusch HW and Ballard RA, eds. Avery's Diseases of the Newborn. 7th ed. Philadelphia, PA: WB Saunders; 1998:467-489.
- Grose C. Intrauterine infection and prenatal diagnosis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th Ed. Philadelphia: WB Saunders, 1996:521-522.
- Ogle JW. Infections: Viral and rickettsial/infections due to enteroviruses. In: Hay WW, Groshus JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:969-973.
- Stagno S. Cytomegalovirus. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics, 15th ed. Philadelphia, PA: WB Saunders; 1996:895-897.

## Clinical Criteria with Description

DXCat Number: PED18

DXCat Label: Drug Withdrawal Syndromes in Neonates

Etiology:

Toxicologic

### Stage Description

1.01	Newborn infant with maternal drug addiction
2.01	Newborn infant with maternal drug addiction, small for gestational age, with asymmetric intrauterine growth retardation
2.02	Newborn infant with maternal drug addiction, small for gestational age, with symmetric inatruaerine growth retardation
2.03	with acute withdrawal syndrome
2.04	with apnea
2.05	with seizures
3.01	with cerebral vascular accident
3.02	with respiratory failure
3.03	with asphyxia
3.04	with coma
3.05	with shock
4.00	with death

### References:

Charlton V. Perinatal and long-term consequences of abnormal fetal growth and nutrition. In: Taeusch HW and Ballard RA, eds. Avery's Diseases of the Newborn. 7th ed. Philadelphia, PA: WB Saunders; 1998:52-54.

Martinez A, Partridge JC, Beam X, Taeusch HW. Perinatal substance abuse. In: Taeusch HW and Ballard RA, eds. Avery's Diseases of the Newborn, 7th Ed. Philadelphia: WB Saunders, 1998:103-118.

Rosenberg AA, Thilo EH. The newborn infant/infants of mothers who abuse drugs. In: Hay WW, Groosthius JR, Hayward AR, Levin MJ, eds. Current Pediatric Diagnosis and Treatment. 13th ed. Stamford, CT: Appleton & Lange; 1997:68-70.

Schechner S. Drug abuse and withdrawal. In: Cloherty JP and Stark AR, eds. Manual of Neonatal Care. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:211-223.

## Clinical Criteria with Description

DXCat Number: PED19

DXCat Label: Full Term Infant with Abnormal Birth Weight

Etiology:

Congenital

### Stage Description

1.01	Full term infant, large for gestational age
1.02	Full term infant, small for gestational age, with asymmetric intrauterine growth retardation
1.03	Full term infant, small for gestational age, with symmetric intrauterine growth retardation
2.01	with hypocalcemia
2.02	with hypoglycemia
2.03	with hyperbilirubinemia
2.04	with polycythemia
2.05	with seizures
3.01	with persistent pulmonary hypertension
3.02	with heart failure
3.03	with respiratory failure
3.04	with asphyxia
3.05	with coma
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED19

DXCat Label: Full Term Infant with Abnormal Birth Weight

Etiology:

Congenital

### Stage Description

### References:

- 
- Academy of Pediatrics. Use and abuse of the Apgar score. *Pediatrics*. 1996;98(1):141-142.
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- DeWayne MP, Cloherty JP. Identifying the high-risk infant. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:37-51.
- 
- Goorin AM. Polycythemia. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:466-470.
- 
- Kliegman RM. The fetus and the neonatal infant. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:431-513.
- 
- Phibbs RH. Neonatal polycythemia. In: Rudolph AM, Hoffman JIE, Rudolph CD and Sagan P, eds. *Rudolph's Pediatrics*. 20th ed. Stamford CT: Appleton & Lange; 1996:252-255.
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## Clinical Criteria with Description

DXCat Number: PED20

Etiology:

DXCat Label: Hyaline Membrane Disease/Respiratory Distress Syndrome

Congenital

### Stage Description

2.01	Newborn infant with respiratory distress syndrome
2.02	Respiratory distress syndrome with interstitial emphysema or pneumothorax or pneumomediastinum
3.01	with respiratory failure
3.02	with asphyxia
3.03	with shock
4.00	with death

### References:

Academy of Pediatrics. Use and abuse of the Apgar score. *Pediatrics*. 1996; 98(1):141-142.

Hansen T, Corbet A. Disorders of transition. In: Taeusch HW and Ballard RA, eds. *Avery's Diseases of the Newborn*. 7th ed. Philadelphia, PA: WB Saunders; 1998:602-629.

Kliegman RM. Respiratory tract disorders. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:476-490.

Liley HG, Stark AR. Respiratory distress syndrome/hyaline membrane disease. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:329-336.

## Clinical Criteria with Description

DXCat Number: PED21

Etiology:

DXCat Label: Injury: To Newborn During Delivery

Trauma

### Stage Description

1.01	Nonspecific trauma to newborn or fetus
1.02	Caput succedaneum
1.03	Cephalohematoma of the newborn
1.04	Soft tissue injuries of the newborn
1.05	Linear skull fracture of the newborn
1.06	Midclavicular, humeral or femoral fractures of the newborn
1.07	Subgaleal hemorrhage of the newborn
2.01	Facial nerve palsy of the newborn
2.02	Brachial plexus injuries of the newborn
2.03	Phrenic nerve paralysis of the newborn
2.04	Depressed skull fracture of the newborn
2.05	Rupture of the liver or spleen
2.06	Adrenal hemorrhage
2.07	Intracranial bleeding of the newborn
2.08	Trauma to the spinal cord of the newborn
3.01	with respiratory failure
3.02	with coma

## Clinical Criteria with Description

DXCat Number: PED21

DXCat Label: Injury: To Newborn During Delivery

Etiology:

Trauma

Stage	Description
3.03	with asphyxia
3.04	with shock
4.00	with death

### References:

Academy of Pediatrics. Use and abuse of the Apgar score. *Pediatrics* 1996; 98(1):141-142.

Kliegman RM. Birth Injury. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:465-471.

Moe PG, Seay AR. Neurologic & muscular disorders/perinatal head injury. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:662-664.

Taeusch HW, Sniderman S. Initial evaluation: history and physical examination of the newborn. In: Taeusch HW and Ballard RA, eds. *Avery's Diseases of the Newborn*. 7th ed. Philadelphia: WB Saunders; 1998:334-353.

Tsuji, M. Birth trauma. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:225-232.

## Clinical Criteria with Description

DXCat Number: PED22

DXCat Label: Meconium Aspiration Syndrome

Etiology:

Congenital

### Stage Description

1.01	Meconium stained amniotic fluid with no signs of respiratory distress
1.02	Meconium aspiration with no complications
2.01	Meconium aspiration with pneumonitis
2.02	with pneumothorax or pneumomediastinum
2.03	with secondary bacterial pneumonia
3.01	with persistent pulmonary hypertension
3.02	with heart failure
3.03	with sepsis
3.04	with DIC
3.05	with respiratory failure
3.06	with asphyxia
3.07	with coma
3.08	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED22

DXCat Label: Meconium Aspiration Syndrome

Etiology:

Congenital

### Stage Description

### References:

Academy of Pediatrics. Use and abuse of the Apgar score. *Pediatrics*. 1996; 98(1):141-142.

Bone RC et al. Definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. *Chest*. 1992;101(6):1644-1655.

Eichenwald EC. Meconium Aspiration. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:388-391.

Hansen T, Corbet A. Disorders of transition. In: Taeusch HW and Ballard RA, eds. *Avery's Diseases of the Newborn*. 7th ed. Philadelphia, PA: WB Saunders, 1998:602-629.

Kliegman RM. Respiratory tract disorders. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia: WB Saunders, 1996:476-490.

Moore TR, Roberts D. Intrapartum fetal management. In: Taeusch HW and Ballard RA, eds. *Avery's Diseases of the Newborn*. 7th ed. Philadelphia, PA: WB Saunders, 1998:154-166.

Proulx F, Fayon M, Farrell CA, Lacroix J, Gauthier M. Epidemiology of sepsis and multiple organ dysfunction syndrome in children. *Chest*. 1996;109(4):1033-1037.

## Clinical Criteria with Description

DXCat Number: PED23

DXCat Label: Neonatal Necrotizing Enterocolitis

Etiology:

Congenital

### Stage Description

1.01	Necrotizing enterocolitis
2.01	with localized peritonitis
2.02	with stricture of the bowel
2.03	with generalized peritonitis
2.04	with bowel perforation
3.01	with sepsis
3.02	with DIC
3.03	with shock
4.00	with death

### References:

Berseth CL, Abrams SA. Special gastrointestinal concerns. In: Taeusch HW and Ballard RA, eds. *Avery's Diseases of the Newborn*. 7th ed. Philadelphia, PA: WB Saunders; 1998:965-978.

Bone RC et al. Definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. *Chest*. 1992; 101(6):1644-1655.

Kliegman RM. Digestive system disorders/neonatal necrotizing enterocolitis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:492-493.

McAlmon KR. Necrotizing enterocolitis. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:609-615.

Proulx F, Fayon M, Farrell CA, Lacroix J, Gauthier M. Epidemiology of sepsis and multiple organ dysfunction syndrome in children. *Chest*. 1996;109(4):1033-1037.

## Clinical Criteria with Description

DXCat Number: PED24

DXCat Label: Perinatal Jaundice

Etiology:

Genetic (or hereditary); Idiopathic; Infection; Nutritional; Trauma

### Stage Description

1.01	Unspecified fetal and neonatal jaundice
2.01	Perinatal jaundice from excessive hemolysis, Kernicterus not due to isoimmunization, Neonatal jaundice associated with preterm delivery or unspecified or other delayed conjugation
2.02	Perinatal jaundice due to hepatocellular damage

### References:

## Clinical Criteria with Description

DXCat Number: PED25

DXCat Label: Postmaturity

Etiology:

Congenital

Stage	Description
1.01	Postmature infant
1.02	with large for gestational age
1.03	with small for gestational age (intrauterine growth retardation)
2.01	with hypocalcemia
2.02	with hypoglycemia
2.03	with hyperbilirubinemia
2.04	with polycythemia
2.05	with seizures
3.01	with persistent pulmonary hypertension
3.02	with heart failure
3.03	with respiratory failure
3.04	with asphyxia
3.05	with coma
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED25

DXCat Label: Postmaturity

Etiology:

Congenital

### Stage Description

### References:

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Academy of Pediatrics. Use and abuse of the Apgar score. *Pediatrics*. 1996;98(1):141-142.

DeWayne MP and Cloherty JP. Identifying the high-risk infant. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:37-51.

Goorin AM. Polycythemia. In: Cloherty JP and Stark AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia: Lippincott-Raven; 1998:466-470.

Kliegman RM. The fetus and the neonatal infant. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:431-513.

Phibbs RH. Neonatal polycythemia. In: Rudolph AM, Hoffman JIE, Rudolph CD and Sagan P, eds. *Rudolph's Pediatrics*. 20th ed. Stamford CT: Appleton & Lange; 1996:252-255.

## Clinical Criteria with Description

DXCat Number: PED26

Etiology:

DXCat Label: Prematurity: Extremely Low Birthweight

Congenital

### Stage Description

2.01	Premature infant with extremely low birthweight
2.02	with intrauterine growth retardation
2.03	with hypocalcemia
2.04	with hypoglycemia
2.05	with hyperbilirubinemia
2.06	with anemia
2.07	with apnea of prematurity
2.08	with seizures
3.01	with intraventricular hemorrhage
3.02	with posthemorrhagic hydrocephalus
3.03	with heart failure
3.04	with sepsis
3.05	with disseminated intravascular coagulation
3.06	with respiratory failure
3.07	with coma
3.08	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED26

DXCat Label: Prematurity: Extremely Low Birthweight

Etiology:

Congenital

### Stage Description

### References:

Bone RC et al. Definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. *Chest*. 1992;101(6):1644-1655.

DeWayne MP, Cloherty JP. Identifying the high-risk infant. In Cloherty JP and Stark, AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:37-51.

Kliegman RM. The high risk infant/prematurity and intrauterine growth retardation. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:454-462.

Prouix F, Fayon M, Farrell CA, Lacroix J, Gauthier M. Epidemiology of sepsis and multiple organ dysfunction syndrome in children. *Chest*. 1996;109(4):1033-1037.

Roland EH. Intraventricular hemorrhage and posthemorrhagic hydrocephalus. *Clinics in Perinatology*. 1997;24(3):589-605.

Rosenberg AA, Thilo EH. The newborn infant/infections in the newborn. In: Hay WW, Groothuis JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:52-59.

Volpe JJ. Brain injury in the premature infant. *Clinics in Perinatology*. 1997;24(3):567-587.

## Clinical Criteria with Description

DXCat Number: PED27

DXCat Label: Prematurity: Low Birthweight

Etiology:

Congenital

### Stage Description

1.01	Premature infant with low birthweight
2.01	and small for gestational age (intrauterine growth retardation)
2.02	with hypocalcemia
2.03	with hypoglycemia
2.04	with hyperbilirubinemia
2.05	with anemia
2.06	with apnea of prematurity
2.07	with seizures
3.01	with intraventricular hemorrhage
3.02	with posthemorrhagic hydrocephalus
3.03	with heart failure
3.04	with sepsis
3.05	with disseminated intravascular coagulation
3.06	with respiratory failure
3.07	with coma
3.08	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED27

DXCat Label: Prematurity: Low Birthweight

Etiology:

Congenital

### Stage Description

### References:

Bone RC et al. Definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. *Chest*. 1992;101(6):1644-1655.

DeWayne MP, Cloherty JP. Identifying the high-risk infant. In: Cloherty JP and Stark, AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:37-51.

Kliegman RM. The high risk infant/prematurity and intrauterine growth retardation. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:454-462.

Prouix F, Fayon M, Farrell CA, Lacroix J, Gauthier M. Epidemiology of sepsis and multiple organ dysfunction syndrome in children. *Chest*. 1996;109(4):1033-1037.

Roland, EH. Intraventricular hemorrhage and posthemorrhagic hydrocephalus. *Clinics in Perinatology*. 1997;24(3)589-605.

Rosenberg AA, Thilo EH. The newborn infant/infections in the newborn. In: Hay WW, Groosthuss JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:52-59.

Volpe JJ. Brain injury in the premature infant. *Clinics in Perinatology*. 1997;24(3)567-587.

## Clinical Criteria with Description

DXCat Number: PED28

Etiology:

DXCat Label: Prematurity: Very Low Birthweight

Congenital

### Stage Description

2.01	Premature infant with very low birthweight
2.02	and small for gestational age (intrauterine growth retardation)
2.03	with hypocalcemia
2.04	with hypoglycemia
2.05	with hyperbilirubinemia
2.06	with anemia
2.07	with apnea of prematurity
2.08	with seizures
3.01	with intraventricular hemorrhage
3.02	with posthemorrhagic hydrocephalus
3.03	with heart failure
3.04	with sepsis
3.05	with disseminated intravascular coagulation
3.06	with respiratory failure
3.07	with coma
3.08	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED28

DXCat Label: Prematurity: Very Low Birthweight

Etiology:

Congenital

### Stage Description

### References:

Bone RC et al. Definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis. *Chest*. 1992; 101(6);1644-1655.

DeWayne MP, Cloherty JP. Identifying the high-risk infant. In: Cloherty JP and Stark, AR, eds. *Manual of Neonatal Care*. 4th ed. Philadelphia, PA: Lippincott-Raven; 1998:37-51.

Kliegman RM. "The High Risk Infant/Prematurity and Intrauterine Growth Retardation. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:454-462.

Prouix F, Fayon M, Farrell CA, Lacroix J, Gauthier M. Epidemiology of sepsis and multiple organ dysfunction syndrome in children. *Chest*. 1996;109(4);1033-1037.

Roland, EH. Intraventricular hemorrhage and posthemorrhagic hydrocephalus. *Clinics in Perinatology*. 1997;24(3)589-605.

Rosenberg AA, Thilo EH. The newborn infant/infections in the newborn. In: Hay WW, Groosthuss JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997:52-59.

Volpe JJ. Brain injury in the premature infant. *Clinics in Perinatology*. 1997;24(3)567-587.

## Clinical Criteria with Description

DXCat Number: PED29

DXCat Label: Rubella: Congenital

Etiology:

Infection, Viral

### Stage Description

2.01	Congenital rubella infections
2.02	with intrauterine growth retardation
2.03	with hepatosplenomegaly and jaundice
2.04	with sensorineural hearing loss
2.05	with microcephaly
2.06	with retinopathy, glaucoma or cataracts
2.07	with mental retardation
2.08	with interstitial pneumonitis
2.09	with congenital heart disease
2.10	with seizures
3.01	with meningoencephalitis
3.02	with congestive heart failure
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED29

DXCat Label: Rubella: Congenital

Etiology:

Infection, Viral

### Stage Description

### References:

Banatvala JE. Rubella--could do better. *Lancet*. 1998;351(9106):849-50.

Beers MH, Berkow R, eds. Congenital rubella. In: *Merck Manual*. 17th ed. Whitehouse Station, NJ: Merck Research Laboratories; 1999:2185-2186.

Cole FS. Viral infections of the fetus and newborn. In: Taeusch HW and Ballard RA, eds. *Avery's Diseases of the Newborn*. 7th ed. Philadelphia, PA: WB Saunders, 1998:467-489.

Gershon A. Rubella (German measles). In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1125-1127.

Ogle JW. Infections: viral and rickettsial/rubella. In: Hay WW, Groosthuss JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*, 13th Ed. Stamford, CT: Appleton & Lange; 1997:987-989.

Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1231-1267.

Thomas DR, Salmon RL, King J. Rates of first measles-mumps-rubella immunisation in Wales (UK). *Lancet*. 1998;351(9120):1927.

## Clinical Criteria with Description

DXCat Number: PED30

DXCat Label: Syphilis: Congenital

Etiology:

Infection, Bacterial

### Stage Description

1.01	Congenital syphilis
2.01	Congenital syphilis with malformations or late congenital syphilis
2.02	Congenital syphilis involving the liver or spleen or kidney or joints or bones
3.01	Cardiovascular congenital syphilis
3.02	Congenital neurosyphilis
3.03	with congestive heart failure
3.04	with shock
4.00	with death

### References:

Anonymous. High-dose intravenous penicillin G in patients with human immunodeficiency virus infection. *N Engl J Med.* 1994;331(22):1469-73.

Jacobs RA. Infectious diseases: spirochetal. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:1304-1324.

Lukehart SA, Holmes KK. Syphilis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine, 14th ed.* New York, NY: McGraw-Hill; 1998:1023-1033.

Malone JL, Wallace MR, Hendrick BB, et al. Syphilis and neurosyphilis in a human immunodeficiency virus type-1 seropositive population: evidence for frequent serologic relapse after therapy. *American Journal of Medicine.* 1995;99(1):55-63.

## Clinical Criteria with Description

DXCat Number: PED31

Etiology:

DXCat Label: Toxoplasmosis: Congenital

Infection

Stage	Description
1.01	Asymptomatic congenital toxoplasmosis
1.02	with lymphadenitis
2.01	Generalized congenital toxoplasmosis
2.02	with chorioretinitis
2.03	with chorioretinitis and blindness
2.04	Toxoplasma pneumonia
2.05	with hemolytic anemia of the newborn or erythroblastosis fetalis
3.01	with meningoencephalitis
3.02	Toxoplasma myocarditis
3.03	with hydrops fetalis
3.04	with coma
4.00	with death

## Clinical Criteria with Description

DXCat Number: PED31

Etiology:

DXCat Label: Toxoplasmosis: Congenital

Infection

### Stage Description

### References:

American Academy of Pediatrics. *Toxoplasma gondii* infections. In Peter G, ed. 1997 Red Book: Report on the Committee on Infectious Diseases. 24th ed. Elk Grove Village, IL: American Academy of Pediatrics; 1997:531-535.

Lynfield R, Guerina NG. Toxoplasmosis. *Pediatrics in Review*. 1997;18:75-83.

McLeod R, Remington JS. Toxoplasmosis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*, 15th ed. Philadelphia, PA: WB Saunders; 1996:978-987.

Remington, JS, McLeod, R and Desmonts, G. Toxoplasmosis. In: Remington JS, Klein JO, eds. *Infectious Diseases of the Fetus and Newborn Infant*. 4th ed. Philadelphia, PA: WB Saunders; 1995:180-222.

Weinberg A and Levin MJ. Parasitic and mycotic infections/toxoplasmosis. In: Hay WW, Groosthous JR, Hayward AR, Levin MJ, eds. *Current Pediatric Diagnosis and Treatment*. 13th ed. Stamford, CT: Appleton & Lange; 1997: 1074-76.

## Clinical Criteria with Description

DXCat Number: PED80

Etiology:

DXCat Label: Anomaly: Other Circulatory System

Congenital

Stage	Description
1.01	Peripheral and visceral vessel anomalies
2.01	Great vessel anomalies
4.00	SIDS death

### References:

## Clinical Criteria with Description

DXCat Number: PED81

Etiology:

DXCat Label: Anomaly: Other Digestive or Hepatobiliary System

Congenital

Stage	Description
1.01	Gastrointestinal, hepatobiliary or pancreatic anomaly, Meckel's diverticulum
2.01	Atresia of intestine, colon, or intestinal fixation, or congenital cystic liver

### References:

## Clinical Criteria with Description

DXCat Number: PED82

DXCat Label: Anomaly: Other Genitalia

Etiology:

Congenital

Stage	Description
1.01	Retractile testis. congenital chordee, micropenia, indeterminate sex

### References:

## Clinical Criteria with Description

DXCat Number: PED83

DXCat Label: Anomaly: Other Nervous System

Etiology:

Congenital

Stage	Description
1.01	Unspecified anomalies of nervous system
2.01	Craniorachischisis or iniencephaly

### References:

## Clinical Criteria with Description

DXCat Number: PED84

Etiology:

DXCat Label: Other Maternal Conditions Affecting Newborn

Stage	Description
1.01	Maternal or labor and delivery conditons affecting the newborn, weeks of gestation

References:

## Clinical Criteria with Description

DXCat Number: PED85

Etiology:

DXCat Label: Other Neonatal Conditions

Stage	Description
0.00	Newborn
1.01	Newborn with blood loss, cutaneous hemorrhage, hypoglycemia, diabetes, thyrotoxicosis, anemia, hypothermia, integumentary conditions
2.01	Newborn with intraventricular or gastrointestinal hemorrhage, meconium obstruction, inspissated milk, cerebral irritation, periventricular leukomalacia
3.01	Newborn with DIC, intestinal perforation, hydrops fetalis, convulsions, CNS dysfunction, or terminated pregnancy

### References:

## Clinical Criteria with Description

DXCat Number: PSY01

DXCat Label: Antisocial Personality Disorder

Etiology:

Psychogenic; Toxicologic

Stage	Description
1.01	Antisocial behavior
2.01	with major crimes
3.01	with coma
3.02	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:645-650.

Gunderson JG, Phillips KA. Personality disorders. In.: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1441-1444.

## Clinical Criteria with Description

DXCat Number: PSY02

DXCat Label: Bipolar Disorder - Major Depressive Episode

Etiology:

Genetic (or hereditary); Psychogenic

### Stage Description

0.00	Bipolar Disorder - major depression in full remission
1.01	Bipolar Disorder - major depression in partial remission
2.01	Bipolar Disorder - major depression
2.02	Major depression severe
2.03	Major depression severe with psychotic features
3.01	with suicidal attempt
3.02	with renal failure
3.03	with intracranial injury
3.04	with respiratory failure
3.05	with coma
3.06	with shock
4.00	with death

### References:

Akiskal HS. Mood disorders: clinical features. In Kaplan HI, Sadock BJ. eds., Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1123-1152.  
American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:317-391.

## Clinical Criteria with Description

DXCat Number: PSY03

DXCat Label: Bipolar Disorder - Manic Episode

Etiology:

Genetic (or hereditary); Psychogenic

Stage	Description
0.00	Manic episode in full remission
1.01	Hypomanic episode
2.01	Manic episode
2.02	Manic episode, severe
2.03	Manic episode, severe with psychotic features
3.01	with suicide attempt
3.02	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:393–444.

Papp LA, Gorman JM. Generalized anxiety disorder. In.: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1236–1249.

## Clinical Criteria with Description

DXCat Number: PSY04

DXCat Label: Depression

Etiology:

Genetic (or hereditary); Psychogenic

### Stage Description

1.01	Adjustment disorder with depressed mood (loss of interest or pleasure in usual activities)
1.02	Depression with loss of interest or pleasure in usual activities
1.03	Depression with substance abuse
2.01	Major Depression
2.02	with psychotic features
3.01	with suicide attempt
3.02	with respiratory failure
3.03	with intracranial injury
3.04	with coma
3.05	with shock
4.00	with death

### References:

Akiskal HS. Mood disorders: clinical features. In: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1123-1152.  
American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:317-349.

## Clinical Criteria with Description

DXCat Number: PSY05

DXCat Label: Drug Abuse, Dependence, Intoxication: Alcohol

Etiology:

Genetic (or hereditary); Psychogenic; Toxicologic

Stage	Description
1.01	Alcohol abuse
1.02	Alcohol dependence
2.01	Alcohol intoxication
2.02	Alcoholism with hepatomegaly or alcoholic polyneuropathy or chronic pancreatitis
2.03	with gastritis or anemia
2.04	with acute pancreatitis
2.05	with cirrhosis
3.01	with Wernicke-Korsakoff's syndrome
3.02	with cardiomegaly or congestive heart failure
3.03	Delirium tremens
3.04	with coma
3.05	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:194-204.

Schuckit MA. Alcohol-related disorders. In.: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:775-791.

## Clinical Criteria with Description

DXCat Number: PSY06

DXCat Label: Drug Abuse, Dependence, Overdose: Amphetamine

Etiology:

Psychogenic; Toxicologic

### Stage Description

1.01	Amphetamine abuse
1.02	Amphetamine dependence
2.01	Amphetamine intoxication
3.01	with suicide attempt
3.02	with disorientation or seizure disorder
3.03	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association, 1994:204–212.

Jaffe JH. Amphetamine (or Amphetamine-like) – related disorder. In: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:791–799.

## Clinical Criteria with Description

DXCat Number: PSY07

DXCat Label: Drug Abuse, Dependence, Overdose: Barbiturate

Etiology:

Psychogenic; Toxicologic

Stage	Description
1.01	Barbiturate abuse
1.02	Barbiturate dependence
2.01	Barbiturate dependence with withdrawal syndrome
2.02	Barbiturate dependence with electrolyte imbalance or dehydration
2.03	Barbiturate intoxication
3.01	with seizures
3.02	with disorientation
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:261-270.

Ciraulo DA, Greenblatt DJ. Sedative, hypnotic -, or anxiolytic – related disorders. In: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:872-887.

## Clinical Criteria with Description

DXCat Number: PSY08

DXCat Label: Drug Abuse, Dependence, Overdose: Cannabis

Etiology:

Psychogenic; Toxicologic

Stage	Description
1.01	Cannabis abuse
1.02	Cannabis dependence
1.03	with panic reaction
2.01	with schizophrenia
2.02	with reckless behavior
2.03	with drug related injury
3.01	with coma
3.02	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:215–221.

Woody GE, MacFadden W. Cannabis – related disorders. In. : Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:810–817.

## Clinical Criteria with Description

DXCat Number: PSY09

DXCat Label: Drug Abuse, Dependence, Overdose: Cocaine

Etiology:

Psychogenic; Toxicologic

Stage	Description
1.01	Cocaine abuse
1.02	Cocaine dependence
2.01	Cocaine intoxication
2.02	with hallucinations or psychosis
2.03	with suicidal ideation
3.01	with suicide attempt
3.02	with seizures
3.03	with myocardial infarction
3.04	with cerebrovascular accident
3.05	with respiratory failure
3.06	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association, 1994:221–229.

Jaffe JH. Cocaine – related disorders. In.: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:817–831.

## Clinical Criteria with Description

DXCat Number: PSY10

Etiology:

DXCat Label: Drug Abuse, Dependence, Overdose: Hallucinogen

Psychogenic; Toxicologic

Stage	Description
1.01	Hallucinogen abuse
1.02	Hallucinogen dependence
2.01	Hallucinogen intoxication
2.02	with psychotic reaction
2.03	with drug related injury
3.01	with suicide attempt
3.02	with seizure
3.03	with coma
3.04	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:229-242, 255-261.

Crowley TJ. Hallucinogen – related disorders, inhalant – related disorders, Phencyclidine or Phencyclidine-like – related disorders. In: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:831–872.

## Clinical Criteria with Description

DXCat Number: PSY11

Etiology:

DXCat Label: Drug Abuse, Dependence, Overdose: Opioid

Psychogenic; Toxicologic

Stage	Description
1.01	Opioid abuse
1.02	Opioid dependence
2.01	with cellulitis
2.02	with pulmonary complications
2.03	with osteomyelitis
3.01	with endocarditis
3.02	with sepsis
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:247–255.

Jaffe JH. Opioid – related disorders. In: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:842–864.

## Clinical Criteria with Description

DXCat Number: PSY12

Etiology:

DXCat Label: Drug Abuse, Dependence, Overdose: Other

Stage	Description
1.01	Other drug abuse
1.02	Other drug dependence
2.01	Other drug dependence with withdrawal
2.02	Other drug dependence with eletrolyte imbalance or dehydration
2.03	with intoxication
3.01	with seizures
3.02	with disorientation
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

### References:

## Clinical Criteria with Description

DXCat Number: PSY13

DXCat Label: Eating disorders: Anorexia Nervosa

Etiology:

Psychogenic

Stage	Description
1.01	Anorexia nervosa
2.01	with anemia
2.02	with hypokalemia
2.03	with hypernatremia
2.04	with hypoadrenalism
3.01	with severe malnutrition
3.02	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistic Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:539–545.

Garfinkel PE. Eating disorders. In.: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1361–1371.

## Clinical Criteria with Description

DXCat Number: PSY14

DXCat Label: Eating disorders: Bulimia Nervosa

Etiology:

Psychogenic

Stage	Description
1.01	Bulimia nervosa
1.02	with self induced vomiting
2.01	with fluid and electrolyte disturbances
2.02	with cardiac arrhythmia
2.03	with esophageal tears
2.04	with gastric rupture
3.01	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:545-550.

Berkow R, Beers MH, eds. In. Merck Manual. 17th ed. Rahway, NJ: Merck & Co., Inc.; 1999:1597-1598.

Garfinkle PE. Eating disorders. In: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1361-1371.

## Clinical Criteria with Description

DXCat Number: PSY15

DXCat Label: Generalized Anxiety Disorder

Etiology:

Psychogenic

Stage	Description
1.01	Generalized anxiety disorder
2.01	with interference of normal function
2.02	wth severe impairment of normal function

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:393–444.

Papp LA, Gorman JM. Generalized anxiety disorder. In.: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1236–1249.

## Clinical Criteria with Description

DXCat Number: PSY16

DXCat Label: Obsessive-Compulsive Neurosis

Etiology:

Psychogenic

Stage	Description
1.01	Obsessive-compulsive disorder
2.01	with somatic manifestations
2.02	Obsessive-compulsive disorder with marked impairment of social, occupational or academic function

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:417-423.

Jenike MA. Obsessive-compulsive disorder. In.: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:1218-1226.

## Clinical Criteria with Description

DXCat Number: PSY80

DXCat Label: Schizophrenia

Etiology:

Genetic (or hereditary); Psychogenic

Stage	Description
1.01	Schizophrenia - Residual Type
1.02	Schizophreniform Disorder
1.03	Schizophrenia
2.01	Schizophrenia, Moderate
2.02	Severe Schizophrenia
2.03	with history of assault or murder conviction
3.01	with suicide attempt or convicted of murder or assault
3.02	with shock
4.00	with death

### References:

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association. 1994:273–296.

Lipton AA, Cancro R. Schizophrenia: clinical features. In: Kaplan HI, Sadock BJ, eds. Comprehensive Textbook of Psychiatry. 6th ed. Baltimore, MD: Williams & Wilkins; 1995:968–987.

## Clinical Criteria with Description

DXCat Number: PSY81

Etiology:

DXCat Label: Autism

Stage	Description
1.01	Infantile autism

References:

## Clinical Criteria with Description

DXCat Number: PSY82

Etiology:

DXCat Label: Other Neuroses

Stage	Description
1.01	Other neuroses, personality disorders and psychogenic disorders

References:

## Clinical Criteria with Description

DXCat Number: PSY83

Etiology:

DXCat Label: Other Psychoses

Stage	Description
1.01	Organic delusions, hallucinosis, transient organic mental disorders and other psychoses
3.01	Delirium

References:

## Clinical Criteria with Description

DXCat Number: RES01

DXCat Label: Asbestosis

Etiology:

Toxicologic

### Stage Description

1.01	Asymptomatic pulmonary asbestosis
1.02	with symptomatic pulmonary fibrosis
2.01	with progressive pulmonary fibrosis
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Madan I. ABC of work related disorders. occupational asthma and other respiratory diseases. *BMJ*. 1996;313(7052):291-4.

Rudd RM. New developments in asbestos-related pleural disease. *Thorax*. 1996;51(2):210-6.

Speizer FE. Environmental lung diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1429-1437.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

Wagner GR. Asbestosis and silicosis. *Lancet*. 1997;349(9061):1311-5.

## Clinical Criteria with Description

DXCat Number: RES02

DXCat Label: Asthma

Etiology:

Idiopathic; Immune

### Stage Description

1.01	Asymptomatic bronchial asthma
2.01	Mild intermittent bronchial asthma
2.02	Mild persistent bronchial asthma
2.03	Moderate persistent bronchial asthma
3.01	Severe persistent bronchial asthma
3.02	Status asthmaticus or severe asthma
3.03	with respiratory failure
3.04	with shock
4.00	with death

### References:

Bone RC. Goals of asthma management. a step-care approach. *Chest*. 1996;109(4):1056-65.

McFadden Jr ER. Asthma. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1419-1426.

National Institutes of Health Consensus Development Conference Consensus Statement. Practical guide for the diagnosis and management of asthma. October 1, 1997.

Niederman MS, Peters SP. Update in pulmonary medicine. *Annals of Internal Medicine*. 1998;128(3):208-15.

Sly RM. Asthma. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:628-641.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES03

DXCat Label: Berylliosis

Etiology:

Toxicologic

Stage	Description
1.01	Berylliosis
2.01	with pulmonary impairment
2.02	with spontaneous pneumothorax
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Kreiss K, Mroz MM, Zhen B, Wiedemann H, Barna B. Risks of beryllium disease related to work processes at a metal, alloy, and oxide production plant. *Occupational & Environmental Medicine*. 1997;54(8):605-12.

Newman LS. Immunology, genetics, and epidemiology of beryllium disease. *Chest*. 1996;109(3 Suppl):40S-43S.

Speizer FE. Environmental lung diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1429-1437.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES04

DXCat Label: Byssinosis

Etiology:

Toxicologic

### Stage Description

1.01	Early byssinosis
1.02	Symptomatic byssinosis
2.01	with chronic bronchitis
2.02	with early chronic obstructive pulmonary disease
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Fishwick D, Fletcher AM, Pickering CA, McL Niven R, Faragher EB. Lung function in Lancashire cotton and man made fibre spinning mill operatives. *Occupational & Environmental Medicine*. 1996;53(1):46-50.

McL Niven R, Pickering CA. Byssinosis: a review. *Thorax*. 1996;51(6):632-7.

Speizer FE. Environmental lung diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1429-1437.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES05

DXCat Label: Chronic Obstructive Pulmonary Disease

Etiology:

Toxicologic; Genetic (or hereditary)

### Stage Description

1.01	Chronic bronchitis
1.02	Acute exacerbation of chronic bronchitis
2.01	Chronic obstructive pulmonary disease, mild
2.02	Chronic obstructive pulmonary disease, moderate
2.03	Chronic obstructive pulmonary disease, severe
3.01	Chronic obstructive pulmonary disease with pulmonary hypertension
3.02	Chronic obstructive pulmonary disease with cor pulmonale
3.03	Chronic obstructive pulmonary disease with acute respiratory failure
3.04	with shock
4.00	with death

### References:

Anonymous. Strategies in preserving lung health and preventing COPD and associated diseases. The National Lung Health Education program (NLHEP). Chest. 1998;113(2 Suppl):123S-163S.

Honig EG, Ingram Jr RH. Chronic bronchitis, emphysema, and airway obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1451-1460.

Niedermaier MS, Peters SP. Update in pulmonary medicine. Annals of Internal Medicine. 1998;128(3):208-15.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES06

DXCat Label: Coal Miner's Pneumoconiosis

Etiology:

Toxicologic

### Stage Description

1.01	Coal miner's pneumoconiosis
2.01	with progressive "massive" fibrosis
2.02	with chronic bronchitis
2.03	with chronic obstructive pulmonary disease
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Love RG, Miller BG, Groat SK, et al. Respiratory health effects of opencast coalmining: a cross sectional study of current workers. *Occupational & Environmental Medicine*. 1997;54(6):416-23.

Meijers JM, Swaen GM, Slangen JJ. Mortality of Dutch coal miners in relation to pneumoconiosis, chronic obstructive pulmonary disease, and lung function. *Occupational & Environmental Medicine*. 1997;54(10):708-13.

Speizer FE. Environmental lung diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1429-1437.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES07

DXCat Label: Croup

Etiology:

Infection, Viral

### Stage Description

1.01	Croupy cough or acute laryngotracheobronchitis
1.02	with hoarseness
1.03	with inspiratory stridor
2.01	Pneumonia with croup
2.02	with pneumothorax or subcutaneous emphysema
3.01	with hypoxemia
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Durand M, Joseph M, Baker AS. Infections of the upper respiratory tract. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:179-185.

Macdonald WB, Geelhoed GC. Management of childhood croup. Thorax. 1997;52(9):757-9.

## Clinical Criteria with Description

DXCat Number: RES08

DXCat Label: Cystic Fibrosis

Etiology:

Genetic (or hereditary)

Stage	Description
1.01	Cystic fibrosis
1.02	with chronic <i>Pseudomonas aeruginosa</i> or <i>Staphylococcus aureus</i> bronchitis
1.03	with bronchiectasis or hyperinflation
2.01	with chronic obstructive pulmonary disease or chronic restrictive lung disease
2.02	with pancreatic insufficiency
2.03	with diabetes mellitus
2.04	with meconium ileus
2.05	with pneumonia
2.06	with cirrhosis of the liver
2.07	with volvulus or intestinal obstruction
2.08	with pneumothorax
3.01	with cor pulmonale
3.02	with sepsis
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: RES08

DXCat Label: Cystic Fibrosis

Etiology:

Genetic (or hereditary)

### Stage Description

### References:

Boat TE. Cystic fibrosis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1239-1251.

Boucher RC. Cystic fibrosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1448-1451.

Rosenstein BJ, Zeitlin PL. Cystic fibrosis. Lancet. 1998;351(9098):277-82.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

Wallis C. Diagnosing cystic fibrosis: blood, sweat, and tears. Archives of Disease in Childhood. 1997;76(2):85-8.

## Clinical Criteria with Description

DXCat Number: RES09

DXCat Label: Emphysema

Etiology:

Genetic (or hereditary); Toxicologic

Stage	Description
1.01	Emphysema
2.01	Moderately severe emphysema
2.03	Severe emphysema
3.01	with cor pulmonale
3.02	with acute respiratory failure
3.03	with shock
4.00	with death

### References:

Anonymous. Strategies in preserving lung health and preventing COPD and associated diseases. The National Lung Health Education Program (NLHEP). Chest. 1995;113(2 Suppl):123S-163S.

Honig EG, Ingram Jr RH. Chronic bronchitis, emphysema, and airway obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine, 14th ed. New York, NY: McGraw-Hill; 1998:1451-1460.

Niederman MS, Peters SP. Update in pulmonary medicine. Annals of Internal Medicine. 1998;128(3):208-15.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES10

DXCat Label: Hypersensitivity Pneumonitis

Etiology:

Immune; Toxicologic

### Stage Description

1.01	Acute hypersensitivity pneumonitis or farmer's lung or bagassosis or bird-fancier's lung or suberosis or malt worker's lung or mushroom worker's lung or maple bark-stripper's lung or other extrinsic allergic alveolitis
1.02	with subacute hypersensitivity pneumonitis
2.01	with restrictive lung disease
2.02	with diffuse interstitial fibrosis
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Greenberger PA. Immunologic aspects of lung diseases and cystic fibrosis. *JAMA*. 1997;278(22):1924-30.

Hunninghake GW, Richerson HB. Hypersensitivity pneumonitis and eosinophilic pneumonias. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1426-1429.

Madan I. ABC of work related disorders. occupational asthma and other respiratory diseases. *BMJ*. 1996;313(7052):291-4.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

Stern RC. Hypersensitivity to inhaled materials. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:1218.

## Clinical Criteria with Description

DXCat Number: RES11

DXCat Label: Influenza

Etiology:

Infection, Viral

### Stage Description

1.01	Influenza
1.02	with acute sinusitis or otitis media or purulent bronchitis
2.01	with pneumonia
2.02	with rhabdomyolysis
3.01	with Reye's syndrome
3.02	with aseptic meningitis
3.03	with respiratory failure
3.04	with coma
3.05	with shock
4.00	with death

### References:

- Dolin R. Influenza. In: Fauci AS, Brawnwald E, Isselbacher KJ, Wilson JD, Martin JB, kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1112-1116.
- Hayden FG, Gwaltney Jr JM. Viral infections. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine. Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:977-1035.
- Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1988:1231-1267.
- Shortridge KF. The next pandemic influenza virus? Lancet. 1995;346(8984):1210-2.
- Wiselka M. Influenza: diagnosis, management, and prophylaxis. BMJ. 1994;308(6940):1341-5.
- Wright P. Influenza viral infection. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:901-903.

## Clinical Criteria with Description

DXCat Number: RES12

DXCat Label: Mycoplasma pneumoniae Infection

Etiology:

Infection, Bacterial

Stage	Description
1.01	Mycoplasma pharyngitis or bullous myringitis or otitis media or sinusitis
1.02	Mycoplasma bronchopneumonia
2.01	with pleural effusion
2.02	with polyarthritits
2.03	with hemolytic anemia
2.04	with Guillain-Barre syndrome
2.05	with Stevens-Johnson syndrome
2.06	with cardiac arrhythmias
3.01	with myocarditis or pericarditis
3.02	with aseptic meningitis
3.03	with respiratory failure
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: RES12

DXCat Label: Mycoplasma pneumoniae Infection

Etiology:

Infection, Bacterial

### Stage Description

### References:

Cassell GH, Gray GC, Waites KB. Mycoplasma infections. In Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1052-1055.

Narita M, Matsuzono Y, Itakura O, Yamada S, Togashi T. Analysis of mycoplasmal pleural effusion by the polymerase chain reaction. Archives of Disease in Childhood. 1998;78(1):67-9.

O'Handley JG, Gray LD. The incidence of mycoplasma pneumoniae pneumonia. Journal of the American Board of Family Practice. 1997;10(6):425-9.

Powell DA. Mycoplasmal infections. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:824-827.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES13

Etiology:

DXCat Label: Neoplasm, Malignant: Lungs, Bronchi, or Mediastinum

Neoplasm

### Stage Description

0.00	History of cancer of the lungs, bronchi or mediastinum
1.01	Early carcinoma of the lungs or bronchi or mediastinum
2.01	Extension of carcinoma of the lungs or bronchi or mediastinum
3.01	Advanced carcinoma of the lung or bronchi or mediastinum
3.02	with distant metastasis
3.03	with shock
4.00	with death

### References:

Minna JD. Neoplasms of the lung. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:552-562.

Spiro SG. Clinical trials in lung cancer: nihilism versus enthusiasm. Thorax. 1997;52(7):598-604.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

Strauss GM, Gleason RE, Sugarbaker DJ. Screening for lung cancer. another look; a different view. Chest. 1997;111(3):754-68.

## Clinical Criteria with Description

DXCat Number: RES14

DXCat Label: Parainfluenza Virus Infection

Etiology:

Infection, Viral

### Stage Description

1.01	Parainfluenza virus infection
1.02	with acute otitis media
1.03	with croup
1.04	with bronchiolitis
2.01	with pneumonia
2.02	with bacterial tracheitis
2.03	with hypoxemia
3.01	with acute upper airway obstruction
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

- Dolin R. Common viral respiratory infections. In: Fauci AS, Brawnwald E, Isselbacher KJ, Wilson JD, Martin JB, kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1100-1105.
- Hayden FG, Gwaltney Jr JM. Viral infections. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine. Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:977-1035.
- Orenstein DM. Acute inflammatory upper airway obstruction. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1201-1205.
- Shandera WX, Carlini ME. Infectious diseases: viral & rickettsial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1988:1231-1267.
- Teichtahl H, Buckmaster N, Pertnikovs E. The incidence of respiratory tract infection in adults requiring hospitalization for asthma. Chest. 1997;112(3):591-6.
- Wright P. Parainfluenza virus. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:903-904.

## Clinical Criteria with Description

DXCat Number: RES15

DXCat Label: Pneumonia: Bacterial

Etiology:

Infection, Bacterial

### Stage Description

1.01	Pneumonia in one lobe
2.01	with bacteremia
2.02	with epiglottitis
2.03	with empyema
2.04	with lung abscess or bronchopleural fistula or bronchopleural cutaneous fistula
2.05	with diffuse involvement of multiple lobes
2.06	with septic arthritis
2.07	with osteomyelitis
2.08	with peritonitis or subphrenic abscess
2.09	with pericarditis
3.01	with endocarditis
3.02	with meningitis
3.03	with congestive heart failure
3.04	with sepsis
3.05	with respiratory failure
3.06	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: RES15

DXCat Label: Pneumonia: Bacterial

Etiology:

Infection, Bacterial

### Stage Description

### References:

Arvin AM. Infections due to pseudomonas. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:796-798.

Deresiewicz RL, Parsonnet J. Staphylococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:875-885.

Eisenstein BI, Watkins V. Diseases caused by gram-negative enteric bacilli. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:936-941.

Friedland IR, McCracken GH Jr. Management of infections caused by antibiotic-resistant streptococcus pneumoniae. N Engl J Med. 1994;331(6):377-82.

Immergluck LC and Daum R. Hemophilus influenzae. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia: WB Saunders; 1996:762-768.

Johnson CC, Finegold SM. Pyogenic bacterial pneumonia, lung abscess, and empyema. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine; Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:1036-1093.

Lieberman D, Schlaeffer F, Boldur I, et al. Multiple pathogens in adult patients admitted with community-acquired pneumonia: a one year prospective study of 346 consecutive patients. Thorax. 1996;51(2):179-84.

Macfarlane J, Rose D. Radiographic features of staphylococcal pneumonia in adults and children. Thorax. 1996;51(5):539-40.

Maley MP. Bacterial threats to new hospitals. Lancet. 1997;350(9072):223-4.

Minton EJ, Macfarlane JT. Antibiotic resistant streptococcus pneumoniae. Thorax. 1996;51 Suppl 2:S45-50.

Murphy TF, Kasper DL. Infections due to haemophilus influenzae, other haemophilus species, the HACEK group, and other gram-negative bacilli. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:924-928.

Murphy TF, Kasper DL. Infections due to haemophilus influenzae, other haemophilus species, the HACEK group, and other gram-negative bacilli. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:924-928.

Musher DM. Pneumococcal infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:869-875.

Pollack M. Infections due to pseudomonas species and related organisms. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:943-950.

Prince SE, Dominger KA, Cunha BA, Klein NC. Klebsiella pneumoniae pneumonia. Heart & Lung. 1997;26(5):413-7.

Prober CG. Pneumonia. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:716-721.

Rumbak MJ, Cancio MR. Significant reduction in methicillin-resistant Staphylococcus aureus ventilator-associated pneumonia associated with the institution of a prevention protocol. Critical Care Medicine. 1995;23(7):1200-3.

Siber GR. Pneumococcal disease: prospects for a new generation of vaccines. Science. 1994;265(5177):1385-7.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

Sundstrom J, Agrup C, Kronvall G, Wretling B. Pseudomonas aeruginosa adherence to external auditory canal epithelium. Archives of Otolaryngology – Head & Neck Surgery. 1997;123(12):1287-92.

## Clinical Criteria with Description

DXCat Number: RES15

DXCat Label: Pneumonia: Bacterial

Etiology:

Infection, Bacterial

### Stage Description

Todd J. Pneumococcal infections. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:760-762.

Todd J. Streptococcal infections. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:750-754.

Tuomanen EI, Austrian R, Masure HR. Pathogenesis of pneumococcal infection. N Engl J Med. 1995;332(19):1280-4.

Wainwright RB. The US Arctic Investigations Program: infectious disease prevention and control research in Alaska. Lancet. 1996;347(9000):517-20.

Wessels MR. "Streptococcal and Enterococcal Infections." In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:885-892.

Wilson R. The role of infection in COPD. Chest. 1998;113(4 Suppl):242S-248S.

Yinnon AM, Butnaru A, Raveh D, Jerassy Z, Rudensky B. Klebsiella bacteraemia: community versus nosocomial infection. QJM. 1996;89(12):933-41.

## Clinical Criteria with Description

DXCat Number: RES16

DXCat Label: Pneumonia: Chlamydial

Etiology:

Infection

### Stage Description

1.01	Chlamydia Pneumonia
2.01	with involvement of multiple lobes
2.02	with hepatomegaly or splenomegaly
2.03	with pericarditis
3.01	with endocarditis
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

- Hammerschlag MR. Chlamydia. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:827-831.
- Johnson CC, Finegold SM. Pyogenic bacterial pneumonia, lung abscess, and empyema. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine. Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:1036-1093.
- Juvonen J, Juvonen T, Laurila A, et al. Can degenerative aortic valve stenosis be related to persistent Chlamydia pneumoniae infection? Annals of Internal Medicine. 1998;128(9):741-4.
- Stamm WE. Chlamydial infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1055-1065.
- Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.
- Taylor-Robinson D, Thomas BJ. Antibodies to cytomegalovirus or Chlamydia pneumoniae and coronary heart disease. Lancet. 1998;351(9096):143.

## Clinical Criteria with Description

DXCat Number: RES17

DXCat Label: Pneumonia: Legionella

Etiology:

Infection, Bacterial

Stage	Description
1.01	Legionella pneumonia
1.02	with multiple lobe involvement
1.03	with atelectasis
2.01	with diarrhea or hyponatremia
2.02	with empyema
2.03	with lung abscess or cavitation
2.04	with pericarditis
3.01	with endocarditis
3.02	with sepsis
3.03	with acute respiratory failure
3.04	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: RES17

DXCat Label: Pneumonia: Legionella

Etiology:

Infection, Bacterial

### Stage Description

### References:

Johnson CC, Finegold SM. Pyogenic bacterial pneumonia, lung abscess, and empyema. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine. Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:1036-1093.

Lieberman D, Porath A, Schlaeffer F, Lieberman D, Boldur I. Legionella species community-acquired pneumonia. A review of 56 hospitalized adult patients. Chest. 1996;109(5):1243-9.

Lieberman D, Schlaeffer F, Boldur I, et al. Multiple pathogens in adult patients admitted with community-acquired pneumonia: a one year prospective study of 346 consecutive patients. Thorax. 1996;51(2):179-84.

Mulazimoglu L, Yu VL. Legionella infections. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:928-933.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

Thompkins L. Legionella. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders, 1996:822-824.

## Clinical Criteria with Description

DXCat Number: RES18

DXCat Label: Pneumonia: Moraxella catarrhalis

Etiology:

Infection, Bacterial

### Stage Description

1.01	Moraxella catarrhalis pneumonia in one lobe
1.02	with small areas in multiple lobes of bronchopneumonia
2.01	with diffuse involvement of multiple lobes
3.01	with endocarditis
3.02	with meningitis
3.03	with sepsis
3.04	with respiratory failure
3.05	with shock
4.00	with death

### References:

- Hol C, Verduin CM, van Dijke E, Verhoef J, van Dijk H. Complement resistance in Branhamella (Moraxella) catarrhalis. *Lancet*. 1993;341(8855):1281.
- Kaiser L, Lew D, Hirschel B, et al. Effects of antibiotic treatment in the subset of common-cold patients who have bacteria in nasopharyngeal secretions. *Lancet*. 1996;347(9014):1507-10.
- Musher DM. Moraxella (Branhamella) catarrhalis, other moraxella species, and kingella. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:922-924.
- Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES19

Etiology:

DXCat Label: Pneumonia: Pneumocystis carinii

Infection

### Stage Description

1.01	Pneumocystis carinii pneumonia
2.01	with hypoxemia
3.01	with respiratory failure
3.02	with shock
4.00	with death

### References:

Beiser C. Recent advances. HIV infection-II. *BMJ*. 1997;314(7080):579-83.

Hughes WT. Pneumocystis carinii pneumonitis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:951-952.

Sepkowitz KA, Brown AE, Armstrong D. Pneumocystis carinii pneumonia without acquired immunodeficiency syndrome. more patients, same risk. *Archives of Internal Medicine*. 1995;155(11):1125-8.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

Walzer PD. Pneumocystitis carinii infection. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1161-1163.

## Clinical Criteria with Description

DXCat Number: RES20

DXCat Label: Pulmonary Alveolar Proteinosis

Etiology:

Genetic (or hereditary); Idiopathic

### Stage Description

1.01	Pulmonary alveolar proteinosis, sporadic or adult type
1.02	Congenital pulmonary alveolar proteinosis
2.01	with hypoxemia
2.02	with restrictive lung disease pattern
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

- Colten HR and Mello DE. Pulmonary alveolar proteinosis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1222-1223.
- King TE Jr, Cherniak RM, Schwarz MI. Idiopathic pulmonary fibrosis and other interstitial lung diseases of unknown etiology. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine. Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:1827-1849.
- Lee KN, Levin DL, Webb WR, et al. Pulmonary alveolar proteinosis: high-resolution CT, chest radiographic, and functional correlations. Chest. 1997;111(4):989-95.
- Reynolds HY. Interstitial lung diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1460-1466.
- Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.
- Wang BM, Stern EJ, Schmidt RA, Pierson DJ. Diagnosing pulmonary alveolar proteinosis. a review and an update. Chest. 1997;111(2):460-6.

## Clinical Criteria with Description

DXCat Number: RES21

DXCat Label: Pulmonary Embolism

Etiology:

Genetic (or hereditary); Metabolic; Trauma

### Stage Description

3.01	Pulmonary embolism
3.02	with pulmonary infarction
3.03	with right ventricular hypokinesia
3.04	with pulmonary hypertension
3.05	with cor pulmonale
3.06	with shock
4.00	with death

### References:

Anonymous. Opinions regarding the diagnosis and management of venous thromboembolic disease. ACCP Consensus Committee on Pulmonary Embolism. American College of Chest Physicians. Chest. 1998;113(2):499-504.

Goldhaber SZ. Pulmonary thromboembolism. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:1469-1472.

Hirsh J, Hoak J. Management of deep vein thrombosis and pulmonary embolism. a statement for healthcare professionals. council on thrombosis. Circulation. 1996;93(12):2212-45.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

Stern RC. Pulmonary embolism and infarction. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1230-31.

## Clinical Criteria with Description

DXCat Number: RES22

DXCat Label: Radiation Pneumonitis

Etiology:

Toxicologic; Trauma

Stage	Description
1.01	Asymptomatic radiation pneumonitis
2.01	with pulmonary impairment
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Cho C, Glatstein E. Radiation injury. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2559-2564.

Movsas B, Raffin TA, Epstein AH, Link CJ Jr. Pulmonary radiation injury. Chest. 1997;111(4):1061-76.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: RES23

DXCat Label: Respiratory Syncytial Virus Infections

Etiology:

Infection, Viral

### Stage Description

1.01	Coryza, or acute nasopharyngitis, or common cold
1.02	with conjunctivitis
1.03	with pharyngitis
1.04	with bronchitis
1.05	with bronchiolitis
1.06	with bronchopneumonia
1.07	with pneumonia
2.01	with hypoxemia
3.01	with respiratory failure
3.02	with shock
4.00	with death

### References:

- Hayden FG, Gwaltney Jr JM. Viral infections. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine. Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:977-1035.
- McIntosh K. Respiratory syncytial virus. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:904-906.
- Orenstein. Bronchiolitis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1211-1213.

## Clinical Criteria with Description

DXCat Number: RES24

DXCat Label: Rhino, Adeno, and Corona Virus Infections

Etiology:

Infection, Viral

### Stage Description

1.01	Coryza by rhinovirus or adenovirus or corona virus or acute nasopharyngitis or common cold
1.02	with conjunctivitis or keratoconjunctivitis
1.03	with pharyngitis
1.04	with acute sinusitis or otitis media
1.05	with bronchitis
1.06	with bronchiolitis
1.07	with bronchopneumonia
1.08	with pneumonia
2.01	with hypoxemia
3.01	with aseptic meningitis
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

- Hayden FG, Gwaltney Jr JM. Viral infections. In: Murray JF, Nadel JA, eds. Textbook of Respiratory Medicine. Vol. 1, 2nd ed. Philadelphia, PA: WB Saunders; 1988:977-1035.
- McIntosh K. Adenovirus. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:906-908.
- McIntosh K. Rhinovirus. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:908-909.
- Orenstein. Bronchiolitis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. Nelson Textbook of Pediatrics. 15th ed. Philadelphia, PA: WB Saunders; 1996:1211-1213.

## Clinical Criteria with Description

DXCat Number: RES25

DXCat Label: Sarcoidosis

Etiology:

Idiopathic

### Stage Description

1.01	Sarcoidosis
1.02	Sarcoidosis with involvement of the skin or sicca syndrome or arthritis
2.01	Sarcoidosis with nephrolithiasis
2.02	Sarcoidosis with cranial nerve palsy
2.03	Sarcoidosis with blindness
2.04	Sarcoidosis with diabetes insipidus
2.05	Sarcoidosis with involvement of the pulmonary parenchyma
3.01	Sarcoidosis with pulmonary hypertension
3.02	Sarcoidosis meningitis
3.03	Sarcoidosis with cor pulmonale
3.04	Sarcoidosis with cardiac abnormalities
3.05	Sarcoidosis with respiratory failure
3.06	with shock
4.00	with death

### References:

Berkow R, Fletcher AJ, eds. In: Merck Manual. 16th ed. Rahway, NJ: Merck & Co., Inc.; 1987:272-275.

Crystal RG. Sarcoidosis. In: Wilson JD, Braunwald E, Isselbacher KJ, Petersdorf RG, Martin JB, Fauci AS, Root RK, eds. Harrison's Principles of Internal Medicine. 12th ed. New York, NY: McGraw-Hill; 1991:1463-1469.

Fanburg BL. Sarcoidosis. In: Wyngaarden JB, Smith Jr LH, Bennett JC, eds. Cecil Textbook of Medicine. 19th ed., Vol 1. Philadelphia, PA: WB Saunders; 1992:430-435.

## Clinical Criteria with Description

DXCat Number: RES26

DXCat Label: Silicosis

Etiology:

Toxicologic

Stage	Description
1.01	Simple nodular silicosis
2.01	Conglomerate silicosis
2.02	with early chronic obstructive pulmonary disease or restrictive lung disease
3.01	with cor pulmonale
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Rosenman KD, Reilly MJ, Kalinowski DJ, Watt FC. Silicosis in the 1990s. *Chest*. 1997;111(3):779-86.

Speizer FE. Environmental lung diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1429-1437.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

Wagner GR. Asbestosis and silicosis. *Lancet*. 1997;349(9061):1311-5.

## Clinical Criteria with Description

DXCat Number: RES27

DXCat Label: Tuberculosis

Etiology:

Infection, Bacterial

Stage	Description
1.01	M. Tuberculosis exposure
1.02	Symptomatic primary tuberculosis
1.03	Tuberculosis of the head and neck
1.04	Advanced primary tuberculosis
2.01	Cavitary primary tuberculosis or tuberculosis pleural effusion
2.02	Miliary tuberculosis
2.03	Tuberculosis of the bones and joints
2.04	Tuberculosis urethritis, epididymo-orchitis, or prostatitis
2.05	Tuberculous pyelonephritis or pelvic inflammatory disease
2.06	Tuberculosis of the GI tract
2.07	Tuberculosis of the liver
2.08	Tuberculous peritonitis
2.09	Adrenal tuberculosis
3.01	Tuberculous pericarditis
3.02	Tuberculous meningitis
3.03	Tuberculous sepsis
3.04	with respiratory failure

## Clinical Criteria with Description

DXCat Number: RES27

DXCat Label: Tuberculosis

Etiology:

Infection, Bacterial

Stage	Description
3.05	with shock
4.00	with death

### References:

Brook MG, Miller RF. Prevention and management of tuberculosis in HIV positive patients living in countries with a low prevalence of Mycobacterium tuberculosis. *Genitourinary Medicine*. 1996;72(2):89-92.

Chambers HF. Infectious diseases: bacterial & chlamydial. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1267-1304.

Raffalli J, Sepkowitz KA, Armstrong D. Community-based outbreaks of tuberculosis. *Archives of Internal Medicine*. 1996;156(10):1053-60.

Raviglione MC, O'Brien RJ. Tuberculosis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1004-1014.

Starke JR. Tuberculosis. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:834-846.

## Clinical Criteria with Description

DXCat Number: RES80

Etiology:

DXCat Label: Complications of Tracheostomy

Stage	Description
1.01	Mechanical complication of tracheostomy
2.01	Infection of tracheostomy

References:

## Clinical Criteria with Description

DXCat Number: RES81

Etiology:

DXCat Label: Neoplasm, Benign: Respiratory System

Neoplasm

Stage	Description
1.01	Benign neoplasm respiratory system

### References:

## Clinical Criteria with Description

DXCat Number: RES82

Etiology:

DXCat Label: Neoplasm, Malignant: Other Respiratory System

Neoplasm

Stage	Description
0.00	History of other respiratory malignancy
1.01	Primary malignant neoplasm of trachea or other respiratory system sites
2.01	with local lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastases
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: RES83

Etiology:

DXCat Label: Other Disorders of Respiratory System

Stage	Description
1.01	Upper respiratory tract hypersensitivity reaction, pneumonopathy, congenital anomalies of respiratory system
2.01	Bronchiectasis, pneumothorax, empyema, pleurisy, pulmonary congestion
3.01	Pulmonary collapse, insufficiency, respiratory failure, agenesis of lung

### References:

## Clinical Criteria with Description

DXCat Number: RES84

Etiology:

DXCat Label: Other Respiratory Disease Due to External Agents

Stage	Description
1.01	Pneumoconiosis, bronchitis, or pneumonitis due to fumes and vapors
2.01	with acute pulmonary edema

### References:

## Clinical Criteria with Description

DXCat Number: RES85

Etiology:

DXCat Label: Other Respiratory Infections

Infection

### Stage Description

1.01	Pneumonia of unspecified origin, plague, tularemia, glanders, meloidosis, pasturellosis, pertussis, actinomycosis, rhinoscleroma, or necrobacillosis
2.01	Pneumonic plague or pulmonary tularemia or hantavirus
3.01	Septicemic plague or other infection with septicemia

### References:

## Clinical Criteria with Description

DXCat Number: RES86

Etiology:

DXCat Label: Other Respiratory Symptoms

Stage	Description
1.01	Hyperventilation, apnea, dyspnea, shortness of breath, chest pain, hemoptysis, hiccough

References:

## Clinical Criteria with Description

DXCat Number: RES87

Etiology:

DXCat Label: Pneumonia: Aspiration

Stage	Description
1.01	Aspiration pneumonia
2.01	with bacteremia
2.02	with empyema
2.03	with lung abscess or bronchopleural fistula or bronchopleural cutaneous fistula
2.04	with septic arthritis
2.05	with osteomyelitis
2.06	with peritonitis or subphrenic abscess
2.07	with pericarditis
3.01	with endocarditis
3.02	with meningitis
3.03	with congestive heart failure
3.04	with sepsis
3.05	with respiratory failure
3.06	with shock
4.00	with death

### References:

## Clinical Criteria with Description

DXCat Number: RES99

Etiology:

DXCat Label: DELETED - Bronchial Foreign Body - Overlapped with ENT04

### Stage Description

1.01	Foreign body in trachea or bronchus
2.01	with localized atelectasis or foreign body in lung or bronchioles
2.02	with pulmonary abscess
3.01	with sepsis
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Brownlee KG, Crabbe DC. Paediatric bronchoscopy. *Archives of Disease in Childhood*. 1997;77(3):272-5.

Levison ME. Pneumonia, including necrotizing pulmonary infections (lung abscess). In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1437-1445.

Orenstein D. Foreign body in the larynx, trachea and bronchi. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:1205-1208.

Stauffer JL. Lung. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:251-333.

## Clinical Criteria with Description

DXCat Number: SKN01

DXCat Label: Decubitus Ulcers

Etiology:

Trauma

### Stage Description

1.01	Decubitus ulcer, Grade I
1.02	Decubitus ulcer, Grade II
2.01	Decubitus ulcer, Grade III
2.02	Decubitus ulcer, Grade IV
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Kennedy CTC. Mechanical and thermal injury. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd.; 1998: 897-902.

Smith DM. Pressure ulcers in the nursing home. *Annals of Internal Medicine*. 1995;(123/6):433-42.

## Clinical Criteria with Description

DXCat Number: SKN02

DXCat Label: Erythema Multiforme

Etiology:

Idiopathic; Immune

### Stage Description

1.01	Erythema multiforme, minor
2.01	Erythema multiforme, major
2.02	Stevens-Johnson Syndrome
3.01	Toxic epidermal necrolysis
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Berger TG. Skin & appendages. In: Tierney Jr LM, McPhee SJ, Papadakis MA eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1999: 153-154.

David PM, Champion RH. Disorders of blood vessels. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd., 1998:2081-2087.

Foedinger D, Elbe-Burger A, Sterniczky B. Erythema multiforme associated human autoantibodies against desmoplakin I and II: biochemical characterization and passive transfer studies into newborn mice. Journal of Investigative Dermatology. 1998;111(3):503-10.

Kroonen LM. Erythema multiforme: case report and discussion. Journal of the American Board of Family Practice. 1998;11(1):63-5.

Weston WL, et al. Atypical forms of herpes simplex-associated erythema multiforme. J Am Acad Dermatol. 1998;39(1):124-6.

Wintroub BU, Stern RS. Cutaneous drug reactions. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:304-310.

## Clinical Criteria with Description

DXCat Number: SKN03

DXCat Label: Erythroderma

Etiology:

Idiopathic

### Stage Description

1.01	Generalized erythema with exfoliation
2.01	Generalized erythema with exfoliation and fever
2.02	with dehydration or hypothermia or hypoalbuminemia
3.01	with shock
4.00	with death

### References:

Boetella-Estrada R, Sanmartin O, Oliver V et al. Erythroderma: a clinico-pathological study of 56 cases. *Arch Dermatol.* 1994;(130):1503-7.

Burton JL, Holden CA. Eczema, lichenification and prurigo. In: Champion RH, Burton JL, Burns DA, Breathnach SM. 6th ed. *Rook/Winkinson/Ebling Textbook of Dermatology.* Oxford: Blackwell Science Ltd., 1998:673-678.

## Clinical Criteria with Description

DXCat Number: SKN04

Etiology:

DXCat Label: Immunologically Mediated Blistering Skin Diseases

Immune

### Stage Description

1.01	Cicatricial pemphigoid
1.02	Epidermolysis bullosa ecquisita
1.03	Linear IgA bullous dermatosis
1.04	Dermatitis herpetiformis
1.05	Pemphigoid gestationis or herpes gestationis
1.06	Bullous pemphigoid
1.07	Pemphigus vulgaris
1.08	Pemphigus foliaceus or fogo selvagem or Brazilial pemphigus
2.01	Paraneoplastic Pemphigus
2.02	with dehydration and electrolyte imbalance
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: SKN04

Etiology:

DXCat Label: Immunologically Mediated Blistering Skin Diseases

Immune

### Stage Description

### References:

- Amagai M, Tsunoda K, Zillikens D. et al. The clinical phenotype of pemphigus is defined by the anti-desmoglein autoantibody profile. *J Am Acad Dermatol.* 1999;40(2): 167-170.
- Berger TG. Skin & appendages. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:111-180.
- Jolles S, Hughes J, Whittaker S. Dermatological uses of high-dose intravenous immunoglobulin. *Archives of Dermatology.* 1998;134(1):80-6.
- Massa MC, Freeark RJ, Kang JS. Localized bullous pemphigoid occurring in a surgical wound. *Dermatology Nursing.* 1996;8(2):101-3.
- Wojnarowska F, Eady RAJ, Burge SM. Bullous eruptions. In: Champion RH, Burton JL, Burns DA, Breathnach SM. *Rook/Wilkinson/Ebling. Textbook of Dermatology.* 6th ed. Oxford: Blackwell Science Ltd., 1998:1817-1897.
- Yancey KB, Lawley TJ. Immunologically mediated skin diseases. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:1869-1874.

## Clinical Criteria with Description

DXCat Number: SKN05

DXCat Label: Infections of Skin and Subcutaneous Tissue

Etiology:

Infection, Bacterial

### Stage Description

1.01	Impetigo contagiosa
1.02	Superficial folliculitis
2.01	Erysipelas (superficial cellulitis)
2.02	Deep folliculitis or acute deep folliculitis or furunculosis or carbunculosis or chronic deep folliculitis
2.03	Necrotizing fasciitis
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

- Berger TG. Skin & appendages. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:111-180.
- Bisno AL, Stevens DL. Streptococcal infections of skin and soft tissues. N Engl J Med. 1996;334(4):240-5.
- Hill MD, Karsh J. Invasive soft tissue infections with streptococcus pneumoniae in patients with systemic lupus erythematosus: case report and review of the literature. Arthritis & Rheumatism. 1997;40(9):1716-9.
- Lucas S. Bacterial disease. In: Elder D, Elenitsas R, Jaworsky C, Johnson B Jr. eds. Lever's Histopathology of the skin. 8th ed. Philadelphia, PA: Lippincott-Raven; 1997:457-502.
- Stevens DL. Infections of the skin, muscle, and soft tissues. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998-827-831.

## Clinical Criteria with Description

DXCat Number: SKN06

Etiology:

DXCat Label: Neoplasm, Malignant: Carcinoma, Basal Cell

Neoplasm

### Stage Description

1.01	Basal cell carcinoma or nodular ulcerative type or pigmented type or morphoeic type or superficial type or fibroepithelioma type
1.02	Basal cell nevus syndrome
2.01	Baso-squamous cell carcinoma
2.02	with lymph node involvement
3.01	with distant metastasis
4.00	with death

### References:

- Berger TG. Skin & appendages. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange' 1998:111-180.
- Goldberg LH. Basal cell carcinoma. Lancet. 1996;347(9002):663-7.
- Grossman D, Leffell DJ. The molecular basis of nonmelanoma skin cancer: new understanding. Archives of Dermatology. 1997;133(10):1263-70.

## Clinical Criteria with Description

DXCat Number: SKN07

Etiology:

DXCat Label: Neoplasm, Malignant: Carcinoma, Squamous Cell

Neoplasm

### Stage Description

1.01	Bowen's disease or actinic keratosis or arsenic keratosis or squamous cell carcinoma in situ or leukoplakia
2.01	Squamous carcinoma of lip, oral cavity, external genitalia or ear
2.02	with lymph node involvement
3.01	with distant metastasis
4.00	with death

### References:

Letzel S, Drexler H. Occupationally related tumors in tar refinery workers. *J Am Acad Dermatol.* 1998;(39):712-20.

MacKie RM. Epidermal skin tumours. In: Champion RH, Burton JL, Burns DA, Breathnach SM., Rook/Wilkinson/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd.; 1998:1651-1693.

## Clinical Criteria with Description

DXCat Number: SKN08

Etiology:

DXCat Label: Neoplasm, Malignant: Melanoma

Neoplasm

### Stage Description

0.00	History of melanoma
1.01	Melanoma in situ
2.01	Lentigo maligna melanoma or superficial spreading melanoma or nodular melanoma or acral lentiginous melanoma
3.01	with regional lymph node involvement
3.02	with distant metastasis
4.00	with death

### References:

Balch CM, Murad TM, Soong SJ et al. A multifactorial analysis of melanoma: prognostic histopathological features comparing Clark's and Breslow's staging methods. *Ann Surg.* 1978;(188):732-42.

Berg P, Lindelof B. Differences in malignant melanoma between children and adolescents. a 35-year epidemiological study. *Archives of Dermatology.* 1997;133(3):295-7.

Berger TG. Skin & appendages. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment.* Stamford, CT: Appleton & Lange; 1998:111-180.

Glass F, Cottam J, Reintgen D, Fenska N. Lymphatic mapping and lymphnode biopsy in the management of high risk melanoma. *J Am Acad Dermatol.* 1998;(39/4):603-610.

Mackie RM. Melanocytic naevi and malignant melanoma. In: Champion RH, Burton JL, Burns DA, Breathnach SM. *Rook/Winkinson/Ebling Textbook of Dermatology.* 6th ed.. Oxford: Blackwell Science Ltd.; 1998:1737-1752.

Reintgen D, Balch CM, Kirkwood J, Ross M. Recent advances in the care of the patient with malignant melanoma. *Annals of Surgery.* 1997;225(1):1-14.

Sober AJ, Koh HK, Tran N-LT, Washington Jr CV. Melanoma and other skin cancers. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine.* 14th ed. New York, NY: McGraw-Hill; 1998:543-549.

## Clinical Criteria with Description

DXCat Number: SKN09

Etiology:

DXCat Label: Neoplasm: Atypical Nevus

Neoplasm

### Stage Description

Stage	Description
0.00	History of atypical nevus syndrome
1.01	Sporadic atypical nevus
1.02	Atypical nevus syndrome (Familial atypical mole/malignant melanoma syndrome)

### References:

MacKie RM. Melanocytic naevi and malignant melanoma. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling Textbook of Dermatology. Oxford: Blackwell Science Ltd.; 1998:1735-1737.

Slade J, Marghoob AA, Salopek TG, Rigel DS, Kopf AW, Bart RS. Atypical mole syndrome: risk factor for cutaneous malignant melanoma and implications for management. J Am Acad Dermatol. 1995;(32/3):479-494.

## Clinical Criteria with Description

DXCat Number: SKN10

DXCat Label: Pilonidal Cyst

Etiology:

Congenital; Trauma

Stage	Description
1.01	Pilonidal cyst
1.02	with multiple sinuses
2.01	with cellulitis
2.02	with abscess
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Bascom J. Pilonidal sinus: experience with the Karydakias flap. *British Journal of Surgery*. 1998;(85/6):874.

Matter I, Kunin J, Schein M, Eldar S. Total excision versus non-resectional methods in the treatment of acute and chronic pilonidal disease. *British Journal of Surgery*. 1995;(82/6):752-3.

Sebastian MW. Plastic and maxillofacial surgery: pilonidal cysts and sinuses. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:1330-1334.

## Clinical Criteria with Description

DXCat Number: SKN11

DXCat Label: Psoriasis Vulgaris

Etiology:

Genetic (or hereditary); Immune

### Stage Description

1.01	Psoriasis vulgaris
1.02	Localized pustular psoriasis
1.03	Generalized pustular psoriasis
2.01	Distal interphalangeal joint psoriatic arthritis
2.02	Psoriatic oligoarthritis
2.03	Psoriatic sacroiliitis or spinal arthritis or arthritis mutilans
2.04	with spondylitis
3.01	Erythrodermic psoriasis
3.02	with sepsis
3.03	with shock
4.00	with death

### References:

Bardolph E, Ashton R. Psoriasis: a review of present and future management. *Nursing Standard*. 1998;12(21):43-7.

Berger TG. Skin & appendages. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:111-180.

Camp RDR. Psoriasis. In: Champion RH, Burton JL, Burns DA, Breathnach SM. *Rook/Wilkinson/Ebling Textbook of Dermatology*. 6th ed. Oxford: Blackwell Science Ltd, 1998:1589-1649.

Dubic et al. Pathogenesis of psoriasis and the mechanism of action of tazarotene. *J Am Acad Dermatol*. 1998;(39):S129-33.

Hellmann DB. Arthritis & musculoskeletal disorders. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:774-824.

Stern RS. Psoriasis. *Lancet*. 1997;350(9074):349-53.

Swerlick RA, Lawley TJ. Eczema, psoriasis, cutaneous infections, acne, and other common skin disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:298-304.

## Clinical Criteria with Description

DXCat Number: SKN12

DXCat Label: Scabies

Etiology:

Infection

Stage	Description
1.01	Scabies
1.02	Norwegian scabies
2.01	Scabies with bacterial infection (pyoderma)

### References:

Arlan LG, Estes SA, Vyszynski-Moher DL. Prevalence of sarcoptes scabiei in the homes and nursing homes of scabietic patients. J Am Acad Dermatol. 1998;(19):806-811.

Burns DA. Diseases caused by arthropods and other noxious animals. In: Champion RH, Burton JL, Burns DA, Breathnach SM. Rook/Wilkinson/Ebling Textbook of Dermatology. 6th ed. Oxford: Blackwell Science Ltd.; 1998:1458-1465.

## Clinical Criteria with Description

DXCat Number: SKN80

Etiology:

DXCat Label: Neoplasm, Benign: Skin or Subcutaneous Tissue

Neoplasm

Stage	Description
1.01	Benign neoplasm of skin or subcutaneous tissue

### References:

## Clinical Criteria with Description

DXCat Number: SKN81

Etiology:

DXCat Label: Neoplasm, Malignant: Other Skin and Soft Tissue

Neoplasm

### Stage Description

1.01	Kaposi's sarcoma or other malignancy of skin or soft tissue
2.01	with lymph node involvement
2.02	with anemia of neoplastic disease
3.01	with distant metastasis
3.02	with shock

### References:

## Clinical Criteria with Description

DXCat Number: SKN82

Etiology:

DXCat Label: Other Inflammations and Infections of Skin and Subcutaneous Tissue

Stage	Description
1.01	Local skin infections, dermatitis, pruritis, scars, ingrown nails, alopecia
1.02	Pyoderma, pyogenic granuloma, pustular dermatoses, pityriasis, systemic inflammatory response
2.01	Gangrene

References:

## Clinical Criteria with Description

DXCat Number: TRA01

DXCat Label: Acetaminophen Toxicity

Etiology:

Toxicologic

Stage	Description
1.01	Acetaminophen Toxicity
2.01	with hepatitis
3.01	with hepatic coma
3.02	with shock
4.00	with death

### References:

- Dienstag JL, Isselbacher KJ. Toxic and drug-induced hepatitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1692-1696.
- Heubi JE, Barbacci MB, Zimmerman HJ. Therapeutic misadventures with acetaminophen: hepatotoxicity after multiple doses in children. *Journal of Pediatrics*. 1998;132(1):22-7.
- Mas A, Rodes J. Fulminant hepatic failure. *Lancet*. 1997;349(9058):1081-5.
- Olson KR. Poisoning. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1465-1496.

## Clinical Criteria with Description

DXCat Number: TRA02

DXCat Label: Adverse Drug Reactions

Etiology:

Toxicologic

### Stage Description

1.01	Adverse drug reaction with cutaneous manifestations
1.02	with fever
2.01	with hemolytic anemia
2.02	with hepatitis or pancreatitis
2.03	with coagulation defects
2.04	with angioneurotic edema
2.05	with hypotension
3.01	with renal failure
3.02	with hepatic encephalopathy
3.03	with respiratory failure
3.04	with ventricular flutter or ventricular fibrillation or "anaphylactic" shock
4.00	with death

### References:

Adelman DC, Terr A. Allergic & immunologic disorders. In: eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:748-774.

Trujillo MH, Guerrero J, Fragachan C, Fernandez MA. Pharmacologic antidotes in critical care medicine: a practical guide for drug administration. Critical Care Medicine. 26(2):377-91, 1998 Feb.

Wood AJJ. Adverse reactions to drugs." In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:422-430.

## Clinical Criteria with Description

DXCat Number: TRA03

DXCat Label: Adverse Effects of Salicylates

Etiology:

Toxicologic

Stage	Description
1.01	Salicylism
2.01	with respiratory alkalosis
2.02	with metabolic derangements or dehydration
2.03	with acidosis
2.04	with hemorrhagic gastritis or diathesis
3.01	with renal failure
3.02	with respiratory failure
3.03	with coma
3.04	with shock
4.00	with death

### References:

Linden CH, Lovejoy Jr FH. Poisoning and drug overdose. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:2523-2544.

Matzke GR. Nonrenal toxicities of acetaminophen, aspirin, and nonsteroidal anti-inflammatory agents. American Journal of Kidney Diseases. 1996;28(1 Suppl 1):S63-70.

Olson KR. Poisoning. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:1465-1496.

Wang X. Aspirin-like drugs cause gastrointestinal injuries by metallic cation chelation. Medical Hypotheses. 1998;50(3):227-38.

## Clinical Criteria with Description

DXCat Number: TRA04

DXCat Label: Burns

Etiology:

Trauma

### Stage Description

1.01	First degree burn
2.01	Second degree burn
2.02	Third degree burn or late effects of burns
2.03	Extensive surface area burn
2.04	Infection of burned area(s)
2.05	with urinary tract infection
2.06	with laryngeal edema
2.07	with pneumonia
3.01	with sepsis
3.02	with respiratory failure
3.03	with shock
4.00	with death

### References:

Atkinson A. Nursing burn wounds on general wards. *Nursing Standard*. 1998;12(41):58-67.

Cohen R, Moelleken BRW. Disorders due to physical agents. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:1443-1465.

Madoff LC. Infections from bites, scratches, and burns, and environmental organisms. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:835-840.

## Clinical Criteria with Description

DXCat Number: TRA05

Etiology:

DXCat Label: Burns, Chemical: Esophagus, Stomach, or Small Intestine

Toxicologic

### Stage Description

1.01	Caustic esophagitis or gastritis or caustic burn of small intestines
2.01	with ulcerations
2.02	with strictures
2.03	with necrosis of muscle
2.04	with perforation of esphasgus or stomach
2.05	with mediastinitis or mediastinal abscess
2.06	with peritonitis or abscess
3.01	with sepsis
3.02	with shock
4.00	with death

## Clinical Criteria with Description

DXCat Number: TRA05

DXCat Label: Burns, Chemical: Esophagus, Stomach, or Small Intestine

Etiology:

Toxicologic

### Stage Description

### References:

- Friedman LS, Peterson WL. Peptic ulcer and related disorders. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1596-1616.
- Goyal RK. diseases of the esophagus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*, 14th ed. New York, NY: McGraw-Hill; 1998:796-801.
- McCall JL, Sharples K, Jadallah F. Systematic review of randomized controlled trials comparing laparoscopic with open appendectomy. *British Journal of Surgery*. 1997;84(8):1045-1050.
- McQuaid KR. Appendicitis. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:600-601.
- McQuaid KR. Diseases of the esophagus: caustic esophageal injury. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange; 1998:564.
- Orringer MB. Tumors, injuries, and miscellaneous conditions of the esophagus. In: Greenfield LJ, Mulholland M, Oldham KT, Zelenock QB, Lillemoe KD, eds. 2nd ed. Lippincott-Raven; 1997:694-735.
- Rodgers BM, McGahren III ED. Esophagus. In: Oldham KT, Colombani PM, Foglia RP, eds. *Surgery of Infants and Children*. Lippincott-Raven, 1997:1005-1020.
- Rohman M, Ivatury RR. Esophagus. In: Ivatury RR, Cayten CG, eds. *The Textbook of Penetrating Trauma*. Williams & Wilkins 1996:555-563.
- Rowe MI, O'Neill Jr JA, Grosfeld JL, Fonkalsrud EW, Covan AG. Esophageal Stricture and Replacement. In: Mosby, ed. *Essential of Pediatric Surgery*, 1995:409-421.
- Sabiston DC. Appendicitis. In: Sabiston, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1997:964-970.
- Sawin RS. Appendix and meckel diverticulum. In: Oldham KT, Colombani PM, Foglia RP, eds. *Surgery of Infants and Children*. Philadelphia, PA: JB Lippincott-Raven; 1997:1215-1228.
- Silen W. Acute appendicitis. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1658-1660.
- Talbert JL. Corrosive strictures of the esophagus. In: Sabiston Textbook of Surgery, 15th ed. Philadelphia, PA: WB Saunders; 1997:784-789.
- Tate JJ. Laparoscopic appendectomy. *British Journal of Surgery*. 1996;83(9):1169-1170.
- Watson DCT. Desophagus. In: Ellis BW, ed. *Hamilton Bailey's Emergency Surgery*. 12th ed, 1995:295-301.

## Clinical Criteria with Description

DXCat Number: TRA06

Etiology:

DXCat Label: Injury, Open Wound, or Blunt Trauma: Abdomen or Trunk

Trauma

### Stage Description

1.01	Superficial trauma or contusion of the back or abdomen not penetrating beyond the subcutaneous tissue
1.02	Avulsion wound of the back or abdomen not penetrating beyond the subcutaneous tissue
1.03	with infection
1.04	with cellulitis
2.01	Open wound of the back or abdomen extending into the deep fascia or crush injury
2.02	with abscess formation
2.03	with gangrene
2.04	with trauma or laceration of internal organs
2.05	with peritonitis
2.06	with retroperitoneal hemorrhage
2.07	with laceration of the abdominal aorta or laceration of the inferior vena cava or iliac vessels
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Coupland R. Abdominal wounds in war. *British Journal of Surgery*. 1996;83(11):1505-11.

Jurkovich GJ, Carrico CJ. Trauma: management of the acutely injured patient. In: Sabiston DC, ed. *Sabiston Textbook of Surgery*. 15th ed. Philadelphia, PA: WB Saunders; 1998:296-340.

Richardson JD, Brewer M. Management of upper abdominal solid organ injuries. *AORN Journal*. 1996;63(5):907-16.

## Clinical Criteria with Description

DXCat Number: TRA07

DXCat Label: Laceration: Esophagus

Etiology:

Trauma

### Stage Description

1.01	Laceration of the esophagus
2.01	with acute bleeding
2.02	with perforation including spontaneous perforation (Boerhaave's syndrome)
2.03	with mediastinitis or mediastinal abscess or pleurisy or hydropneumothorax
3.01	with sepsis
3.02	with shock
4.00	with death

### References:

Duranceau A. Perforation of the esophagus. In: Sabiston, ed. Sabiston Textbook of Surgery, 15th ed. Philadelphia, PA: WB Saunders; 1997:759-767.

Goyal RK. Diseases of the esophagus. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo, DL, eds. Harrison's Principles of Internal Medicine. 14th ed. New York, NY: McGraw-Hill; 1998:796-801.

Kanowitz A, Markovchick V, Danzl, et al. Esophageal and diaphragmatic trauma. In: Mosby, ed. Emergency Medicine. 4th ed. 1998:546-554.

McQuaid KR. Diseases of the esophagus: benign esophageal lesions. In: Tierney Jr LM, McPhee SJ Papadakis MA, eds. Current Medical Diagnosis & Treatment. Stamford, CT: Appleton & Lange; 1998:565.

Rohman M, Ivatury RR. Esophagus. In: Ivatury RR, Cayten CG, eds. The Textbook of Penetrating Trauma. Philadelphia, PA: Williams & Wilkins; 1996:555-563.

Rowe MI, O'Neill JA, Grosfeld JL, Fonkalsrud EW, Coran AG. Esophageal rupture and perforation. In: Mosby, ed. Essentials of Pediatric Surgery. Philadelphia, PA. 1995:419-421.

Scherer LR III. Thoracic trauma. In: Oldham KT, Colombani PM, Foglia RP, eds. Surgery of Infants and Children. Philadelphia, PA: Lippincott-Raven, 1997:455-461.

Watson DCT. Oesophagus. In: Enis BW, ed. H Bailey's Emergency Surgery, 12th ed. 1995:295-301.

## Clinical Criteria with Description

DXCat Number: TRA08

DXCat Label: Lead Poisoning

Etiology:

Toxicologic

### Stage Description

1.01	Lead poisoning
1.02	with blood lead level 20-44 mcg/dl
1.03	with blood lead level 45-69 mcg/dl
1.04	with blood lead level $\geq$ 70 mcg/dl
2.01	Symptomatic lead poisoning
2.02	with permanent neurologic deficits
3.01	with encephalopathy
4.00	with death

### References:

- Bleeker ML, Lindgren KN, Ford DP. Differential contribution of current and cumulative indices of lead dose to neuropsychological performance by age. *Neurology*. 1997;48:639-645.
- Davioli CT, Serwint JR, Chisolm JJ. Asymptomatic children with venous lead levels >100mcg/dl." *Pediatrics*. 1996;98:965-968.
- Hu H. Heavy metal poisoning/lead. In: Fauci AS, Braunwald E, Isselbacher KJ, Wilson JD, Martin JB, Kasper DL, Hauser SL, Longo DL, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:2565-2566.
- Landrigan PJ, Todd AC. Lead poisoning. *Western Journal of Medicine*. 1994;161:153-159.
- McDonald JA, Potter NU. Lead legacy? early and late mortality of 454 lead-poisoned children. *Archives of Environmental Health*. 1996;51:116-129.
- Olson KR. Poisoning/lead. In: Tierney Jr LM, McPhee SJ, Papadakis MA, eds. *Current Medical Diagnosis & Treatment*. Stamford, CT: Appleton & Lange, 1998:1484-1485.
- Piomelli S. Lead poisoning. In: Behrman RE, Kliegman RM, Arvin AM, Nelson WE, eds. *Nelson Textbook of Pediatrics*. 15th ed. Philadelphia, PA: WB Saunders; 1996:2010-2013.
- Pocock SJ, Smith M, Berghurst P. Environmental lead and children's intelligence: A systematic review of the epidemiological evidence." *British Medical Journal*. 1994;309:1189-1197.

## Clinical Criteria with Description

DXCat Number: TRA09

Etiology:

DXCat Label: Toxic Effects of Nonmedicinal Agents

Stage	Description
1.01	Toxic effects of specified alcohols, petroleum products, solvents, corrosive agents, metals, excluding lead and beryllium, toxic effects of carbon monoxide and other gases, noxious substances eaten as food and other nonmedicinal substances, late effects of toxic effects of nonmedicinal substances

References:

## Clinical Criteria with Description

DXCat Number: TRA80

Etiology:

DXCat Label: Effects of Environment and Other External Causes

Stage	Description
1.01	Effects of radiation, temperature, elevation, motion, unspecified allergy
3.01	Anaphylactic or anesthetic shock

### References:

## Clinical Criteria with Description

DXCat Number: TRA81

Etiology:

DXCat Label: Injury: Other

Trauma

### Stage Description

1.01	Periocular burns, open wounds, abrasions, blisters, foreign bodies, contusions, abuse, adverse food reactions
2.01	Open wounds with infection, crush injuries, or late effects of internal injuries or other external causes
3.01	Traumatic shock, embolism, or anuria

### References:

## Clinical Criteria with Description

DXCat Number: TRA82

Etiology:

DXCat Label: Poisoning: Drugs Other Than Antidepressants or Tranquilizers

Toxicologic

Stage	Description
1.01	Poisoning by anti-infectives, hormones and other drugs

### References: